Cashing in on Cetourism: A Critical Ecological Engagement with Dominant E-NGO Discourses on Whaling, Cetacean Conservation, and Whale Watching

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Abstract: This paper engages critically with the monolithic presentation of whale watching as the antithesis of whale hunting. It begins by tackling the reductive and homogenized portrayal of whale watching in mainstream environmental discourse as diametrically opposite to whale hunting and argues that such discourse likely obscures the existence of bad whale watching conduct. Next it reveals significant continuities between whale hunting and whale watching, especially the fetishized commoditization of cetaceans and the creation of a metabolic rift in human–cetacean relations. In both contexts nature is produced first and foremost according to capitalist principles, which problematizes the pervasive assumption that whale watching correlates primarily and directly with conservation. Finally, the paper examines two different business models and the production of distinct ecological and community development effects. The results of the comparison justify the need for more critical and effective environmental non-governmental organization approaches to cetourism vis-à-vis nature conservation goals.

Keywords: cetaceans, eco-tourism, marine conservation, metabolic rift, whaling, whale watching

I will always remember the sight and smell of sperm whales being processed at the whaling factories of Sao Roque do Pico and Horta Faial in the Azores, which I first visited as a child in the mid 1970s. To see such a magnificent animal cut into pieces and melted for blubber was a gruesome experience. But it was also marked by an atmosphere of joy as the men who hunted the whales relied on this activity for income in an otherwise extremely poor community. Later, in my teens, I witnessed the sad image afforded by the decaying whale boats and whaling canoes that signaled the end of a prosperous whaling epoch in the islands of Pico and Faial when Portugal signed the Bern Convention. Thus the century old economic history of human–cetacean relations ended in less than a decade (Neves-Graca 2004, 2006).

Shortly thereafter, however, cetaceans began to regain their economic importance with the establishment of the first whale watching company.
in Pico, which quickly became a major source of revenue for investors in many other Azorean locations (Neves-Graca 2004, 2006). Tourists visiting the Azores now find the legacy of whale hunting (in museums and/or recovered whaling canoes currently used for nautical sports) existing side by side with many whale-watching businesses. What was once a deadly economic activity appears to have been transformed into an ecologically and economically sustainable source of revenue.

These transformations in the Azores reflect a global trend. Whale watching has now become an important economic earner for maritime communities around the world, though many of these never practiced whale hunting (Neves-Graca 2002). The growth of whale watching since the 1960s can be attributed to several historical trends, including international treaties forbidding continued whale hunting, a drastic decline in market demand for whale-derived commodities, and major campaigns by environmental non-governmental organizations (E-NGOs) to support whale watching as a sustainable alternative to whale hunting (Epstein 2008).

This promotion of whale watching by E-NGOs and tourist companies has contributed to a predicament in which whale watching is widely equated with cetacean conservation. Taking this assumption for granted, however, undermines the possibility of distinguishing between different types of whale watching and the degree to which they effectively live up to conservationist goals (Neves-Graca 2002, 2004). Consequently, E-NGOs have diminished their own capacity to identify cases where whale watching may actually have damaging effects on cetaceans. While for the most part whale-watching businesses do indeed reflect pro-environmental and pro-conservation principles, the activity itself does not constitute a set of homogeneous practices (Neves-Graca 2002, 2004, 2006). Given that cetourism continues to grow exponentially, its purported ecological soundness and ability to generate socio-economic gains for communities certainly merits closer scrutiny.

This paper tackles uncritical assumptions about whale watching from a historical perspective. It compares classic whaling with contemporary whale watching in order to reveal the lines of continuity—as well as gaps—that exist between them. Relying on Castree’s (2000, 2007) arguments concerning the “production of nature”, and the Marxist concept of “metabolic rift” (Foster 1999, 2000), I will show that the two types of commercial activity share core features of a capitalist mode of production, although they each produce different natures at distinct junctures in the history of capitalism. While whale hunting was essentially tied to a mode of capitalist production and growth that relied on the extraction of natural resources from the ocean to distant localities, whale watching produces nature as a provider of services to be consumed.
and enjoyed in situ. Whale hunting instated a metabolic rift by removing nutrients from the ocean and by decimating entire whale populations. Whale watching can potentially create a metabolic rift by disrupting whale feeding patterns and animal sociability communication. Because each of these two capitalist activities produces a different kind of metabolic rift, it is necessary to rethink this concept towards a better understanding of its relevance in a contemporary setting of human–cetacean relationships. Especially when aspects of dominant environmental discourse have the unexpected effect of eliding potential harms posed by cetourism.

This paper contextualizes the production of cetacean natures vis-à-vis socio-culturally, politically, and historically situated understandings and uses of cetaceans as they intersect with global economic processes as well as with major concerns in late modern societies. I will demonstrate that the promotion and practice of whale watching tends to obscure what O’Connor (1988) has labeled “the classic contradictions of nature and capitalism”. As I have argued elsewhere (Igoe, Neves and Brockington this issue; Neves 2008, 2009), the equation of marine ecotourism with ecologically sound conservation reflects a much wider late capitalist trend in which conservation is increasingly conflated with consumption. I will develop these arguments as follows.

First, I will argue that the efforts of some of the world’s most prominent E-NGOs to save whales from being hunted to extinction have produced and propagated whale watching as a quintessentially and uniformly benign activity. This homogenized promotion of whale watching includes the forging of explicit linkages between whale watching and an endless variety of commodities and consumptive experiences, while simultaneously portraying cetourism as an enlightened form of biodiversity conservation.

Second, I will demonstrate that there is greater continuity between whale hunting and whale watching than the above presentations would suggest. The transition from one to the other is more closely related to transformations in the global capitalist economy than to enlightened progress in human–cetacean relations.

Finally I will reveal that whale-watching business models are a prime factor in shaping how whale watching is designed and practiced in specific contexts. Some business models contribute to significant ecological harm while failing to make significant contributions to community economic sustainability. I illustrate this argument through a comparative analysis of two different whale-watching business models: Azores and the Canary Islands. I thereby contest the reductionism that is entailed in taking for granted that the relation between cetourism, economic development/growth, and conservation is essentially and universally benign.
Whale Watching and E-NGO Discourse: Conservation-Cum-Ecobusiness

E-NGOs occupy pole position in promoting whale-watching businesses as the means to achieve marine cetacean conservation, not only as more ecologically enlightened than whale hunting but also in yielding unprecedented returns to investment on cetaceans. In this context, consumption is often presented as the road to conservation. In keeping from view the contradictions that may stem from the concurrent pursuit of conservation and capitalist growth, the relationship between conservation and consumption is presented in overly simplified terms as essentially benign. Accordingly, whale-watching businesses are homogenized as being necessarily “good for conservation”.

This conceals the fact that different whale-watching businesses have distinct ecological and social impacts—some carrying negative dimensions (Cawardine 2007; Duffus 1996; Hoyt 1998; Hoyt and Hvenegaard 2002; Orams 2000). E-NGOs thus miss out on their potential to take a more effective role securing the implementation of sound ecological practices and in discouraging bad whale watching conduct. It is therefore important to briefly describe the main features of this increasingly dominant discourse and discuss the ways in which it can at times have the unintended effect of hiding linkages between the commoditization of cetaceans and the potential ecological harms they may incur as a result. While I only mention key examples of this type of E-NGO discourse (cf Einarsson 1993; Epstein 2003, 2006; Freeman 1994, 1996, 2001; Kalland 1994a, 1994b; Pearce 1991), these examples are derived from a systematic survey of E-NGO websites promoting whale watching.

On its UK anti-whaling website Greenpeace informs us that “whale watching has shown the potential to become far more profitable than whaling ever was. It is already generating a staggering $1.25 billion per year”. The site further informs us that in addition to these major economic advantages, whale watching provides unique opportunities for cetacean research and that it stimulates increased public appreciation of marine environments and greater public sensitivity in relation to conservation issues. Another Greenpeace website evokes social benefits:

Its benefits are spread out over a larger portion of the local population. It is not just the (by now) ex-whalers who would benefit from charging for the actual boat safari. Other locals running shops, hotels, and restaurants would also benefit. This in areas where employment opportunities are desperately needed.

The research I have conducted on whale watching does indeed support this positive view of the activity. Nevertheless, the discourse leaves unmentioned the many cases around the world where whale...
watching has failed to live up to such promises and even caused major environmental problems, as discussed in the final section of this paper.

Greenpeace’s discussion of the potential dangers that cetaceans still face after the cessation of whale hunting is illustrative of dominant representations of whale watching that emphasize its positive outcomes while leaving out its damaging effects. Instead of addressing the problem of underwater noise pollution or the major stress that an excessive number of whale-watching boats causes to cetaceans, or even the disruptions that are caused when humans insist on swimming with cetaceans, the site mentions only that “whales face an increasing number of environmental threats from contaminants such as PCBs, and other forms of pollution” (Greenpeace nd). Similar patterns for discussing the risks and dangers faced by cetaceans can be found in most of the E-NGO sites I have researched. Given that many of these E-NGOs have actually participated in critical studies of whale watching, the omission of potential negative impacts of whale watching can only be understood as a strategy that is meant to avoid sending mixed messages to the public about the good and bad of this activity.

A similarly uncritical view of the exponential growth and benefits of whale-watching businesses is observable in a joint press release by the Whale and Dolphin Conservation Society (WDCS), the International Fund for Animal Welfare (IFAW), and Global Ocean.11 Reporting a “massive growth” for whale watching in Latin America, the press release states that it “highlights the economic value of the industry as an alternative to whaling”, in spite of the fact that whaling has not been a viable economic activity in Latin America in recent times. While it makes reference to internationally renowned whale watching expert Erich Hoyt, stating that “responsible whale watching offers substantial, diverse, community benefits compared to narrowly focused, out-of-touch whaling industry”, it contains no warnings about the effects of irresponsible whale watching, which Hoyt has warned against in many other contexts (eg Hoyt 2001).

Of all the major E-NGO websites that I have analyzed, the World Wildlife Fund (WWF) draws the clearest connections between whale watching and conservation when it states that: “It’s not just good fun; whale watching is good for conservation too”.12 (emphasis added) The site goes on to add informative numbers concerning the economics of whale watching. It states that 10 million people go on whale-watching trips every year around the world (one wonders what the ecological footprint of 10 million ecotourists might be) spending more than US$1.25 billion a year. To really drive home the point that whale watching is a serious player in the realm of international economics, the site adds that: “The number of whale watchers is increasing at 12 percent a year, three times faster than overall tourism numbers.”
Since there is no doubt that the WWF has played a major role in saving whales from being hunted to extinction, its intervention would surely make a big difference in places where bad whale-watching practices are having negative effects on cetaceans. Unfortunately, as is the pattern with other NGOs, when it comes to a discussion of the negative impacts of whale watching, WWF’s site is mute. It lists the following as the major risks still faced by whales: by-catch, climate change, collisions, seismic and sonar activity, loss of habitat, and over-fishing. None of these are related to whale watching excepting potential collisions, but the information that is available on the site refers only to cetacean collisions with cargo ships. With the exception of over-fishing, none is related to whale hunting either.

Still, insofar as this paper is concerned, what is most surprising about WWF’s website is that it actually provides a link to purchase wilderness trips through a partnership it established with “Natural Habitat Adventures”. The ways in which conservation and consumerism intersect in this context are so striking that it is hard to determine to what extent Natural Habitat Adventures is—or is not—a subsidiary of WWF.

Of the many trips it offers, one is to Spitsbergen, Norway to see beluga whales. The rates for such a trip are US$9880 per person based on double occupancy, with solo rates starting at US$16,580. Note that the top banner of the page advertising reads: “WWF works globally to protect endangered whales” thus establishing a connection between conservation efforts and the consumption of nature services.

Finally, the website raises the issue that traveling to such a remote location produces a quite large ecological footprint since most ecotourists need to travel by airplane in order to reach that destination. The website readily offers a solution to this problem by providing a link to a page that offers climate-friendly travel. At the click of a few electronic buttons, one can thus not only calculate the amount of carbon emission such a trip would accumulate, one can also—with a few more clicks and a credit card—offset carbon emissions by spending a respective dollar amount.

The WWF website reveals a close relationship between contemporary mainstream conservation, whale watching and consumption. Based on the data I have just shown, it is indeed easily argued that conservation and consumerism have become closely intertwined. Collaborative research with Jim Igoe (Dartmouth College) and Dan Brockington (Manchester University) shows that this tendency is not peculiar to whale watching but is rather a general tendency in conservation discourse and practice (Igoe, Neves and Brockington this issue). This is an issue of concern and one that calls for a more careful analysis of core assumptions in conservation discourse.
The inception of a more critical approach to cetourism can be found within the international regulatory context of the IWC, which has made a firm commitment towards a more objective and scientific-based assessment of whale watching. A 2008 IWC report reads: “the subcommittee agreed that a review of whale watching in Portugal (Azores, Madeira), the Canary Islands and the Strait of Gibraltar would be of interest for next year’s meeting” (IWC 2008). I contend that efforts in this direction must clearly engage the capitalist nature of cetourism, which lies hidden behind a dualistic understanding of whale watching vis-à-vis whale hunting, and include a more reflexive understanding of the current ambiguity that marks the production of nature (Castree 2000) at the intersection of capitalism and conservation (Igoe, Neves and Brockington this issue).

Are Whale Hunting and Whale Watching Really Polar Opposites? A Theoretical Framework

In modern western societies interactions with cetaceans have been at the forefront of major socio-economic historical transformations that characterize different socio-economic epochs. Commercial whale hunting, for example, was a definitive element of the industrial revolution. When the finiteness of natural resources became inescapably evident in the 1960s and 1970s, images of industrially hunted whales became themselves a new type of commodity. This commodity was essential to the ascendancy of E-NGOs like Greenpeace (Blok 2007; Mowat 2005 [1972]) who relied on images of bleeding whales to run funding and sensitization campaigns, and to the creation of the pro-conservation context out of which whale watching grew into a premier mass scale ecotourism enterprise.

An especially significant outcome of these transformations was the institutionalization of flagship species in the branding of NGOs and in raising awareness about environmental causes. The danger in these otherwise fortuitous changes, however, is that they can obscure the embeddedness of species in larger ecosystems as well as the nature of their relationships to human beings. Likewise, iconized presentations of whale watching as universally beneficial to cetaceans and community sustainability can at times conceal the potentially negative aspects of some types of whale-watching practice. I am particularly concerned with the ways in which dominant conservation discourse contrasting whale hunting with whale watching at times obscures the capitalist nature of cetourism therefore inhibiting the emergence of a more critical view of this activity in places where practices are more closely dictated by short-term profit goals than by environmental concerns. Indeed, the major aspect of concern in this discourse is the presentation of whale watching as quintessentially ecological as if it wasn’t first and foremost a capitalist enterprise.
In order to compare the capitalist nature of whale hunting and whale watching I deploy a Marxist approach to tackle four capitalist pillars I identify as pertinent to the present context. First, a relationship between human and non-human worlds that—given the logic of capital investment—tends to disrupt the dynamic processes by means of which ecosystems endure. These disruptions fall under a term which Marx theorized as a “metabolic rift”, and which I employ and expand upon with reference to the practices of cetourism. Second, a process that renders invisible the material and social activities by means of which goods are produced and subsequently exchanged for money such that they appear in the market as if by magic; following Marxist terminology, I call this process the fetishization of commodities. Third, a system that is based on exploitative class relationships whereby those who are in a position to make capital investments are enabled to extract labour value from those who have no other means to subsist but to offer their labour in exchange for money; this process leads to the alienation of workers, including alienation from the ecological conditions of production (see Burkett 1999). Fourth, the conceptualization of “nature” as a bountiful pool of resources that exist either in the form of material resources or, more recently, in the form of services that are meant to satisfy human needs.

The conceptualization of nature and the material transformation of nature are so interlinked in the context of capitalism that it is misleading to talk of nature and society as autonomous systems (Castree 2000). To be sure, within the currently dominant mode of production, Capital and Nature are always implicated in one another such as to suggest “a perspective . . . in which causality and agency is complex, relative, and contingent: in short, difficult to generalize about” (Castree 2000:18). In the context of whale hunting, nature was produced conceptually and materially from a Promethean standpoint whereby whales were seen as endlessly plentiful resources that existed to be harvested in order to serve human material needs. The whale-hunting industry acted accordingly, creating a material reality for whales that is well known. In the context of whale watching, nature is produced from a conservationist standpoint whereby cetaceans are produced conceptually and materially as unique and precious species to be protected from the damages that they incurred historically to serve human material needs. This produces cetaceans materially as service providers meant to satisfy a new array of non-material (ie psychological, emotional, ludic) human needs.

When one considers the devastating impacts that hunting had on whale populations all over the world, the differences between whale hunting and whale watching appear abysmal. From the perspective of the processes outlined in the previous paragraph, however, the two are more similar than they first appear. Both have reduced cetaceans to commodities, while fetishizing the social and ecological costs of
this commoditization. While the potential damages of whale watching may seem trivial in comparison to the damages of whale hunting, the important issue it raises concerns the fetishization of ecotourism as conservation practice which, as others have argued (Brockington, Duffy and Igoe 2008; Igoe, Neves and Brockington this issue), is an increasingly common occurrence in the context of neoliberal conservation.

Marx’s notion of metabolic rift, as taken up in recent years by John Bellamy Foster, is core to the formulation of these arguments. Foster has demonstrated that Marx’s insights are key to a critical understanding of twentieth and twenty-first century ecological predicaments. Drawing mostly from *Grundrisse*, Foster (1999, 2000) argues that Marx conceptualized the human relationship with nature as a dynamic activity whereby humans and nature exchange nutrients that are essential to living processes both in humans and in nature. Marx called this process *Stoffwechsel*, which is commonly translated as “metabolism”.16 Humans intervene and affect nature’s metabolism as they procure their own metabolic sustenance and in the process the “two” (human and non-human) metabolisms become intertwined. While in certain modes of production this relationship may entail higher degrees of reciprocity, in a capitalist context it entails a destructive schism marked by a unidirectional flow of nutrients from the non-human world to the human sphere. This unidirectionality compromises the viability of nature’s metabolism in the long term. According to Marx this is further accentuated in the context of an extractive relation between rural areas and cities (Foster 2000).

While Marx was particularly concerned with the effects of industrial agriculture on the long-term fertility of the soil, the concept of the metabolic rift is more generally applicable to the fetishization of human–environmental relationships, such that the environmental costs of capitalist modes of production are hidden from view (see Burkett 1999).17 From this more generalized perspective, Marx’s concept of the metabolic rift remains a highly relevant contribution for theorizing and analyzing human–nature relations in a capitalist context. First, the concept draws attention to the serious disruptions that capitalist modes of production introduce to ecosystems due to profit accumulation imperatives. Perhaps even more importantly, Marx’s articulation of the metabolic rift provides a theoretical framework for explaining the social and ecological conditions under which nature is transformed into consumable products and the ways in which these processes are rendered invisible to consumers. It helps explain how commodities appear on the market as if by magic, that is, in fetishized form, since most consumers never have a chance to know the social and ecological costs/effects that are associated with the production of commodities.

Whale hunting emerged in global economic conditions similar to those from which industrial agriculture emerged. As such it entailed
crucially similar types of relationships to which the metabolic rift concept is easily applicable. First, there were significant geographical distances between production and consumption. Whales were extracted from the ocean to be processed and consumed at distant locations. This included the decimation of whales to produce oil and other industrial products. Significantly, this included the production of fertilizers for the emerging forms of industrial agriculture with which Marx was so concerned (see endnote 15). These relationships clearly constituted unilinear flows of nutrients from the non-human world to the human sphere. They also entailed brutally exploitative class relationships. Because of the distances they entailed, however, the ecological and social costs of these relationships were effectively concealed from the average consumer.

It was not until the 1960s that the destructive ecological and social impacts of these relationships were widely exposed through the anti-whaling campaigns of E-NGOs. However, these campaigns involved new types of commoditization and fetishization, as images of slaughtered whales became important commodities in the highly competitive world of NGO fundraising. The promotion of whale watching as an alternative to whale hunting created new possibilities for metabolic rifts that reflect emerging types of social and economic relationships in the context of late market capitalism. In stark contrast to whale hunting, the production and consumption of whale-watching experiences are not characterized by tremendous distance. In fact, they tend to occur simultaneously at precisely the same location. The metabolic rift that occurs in whale watching is thus not rendered invisible by distance, but because the average whale watching consumer does not possess the knowledge (Beson 1998) to identify the patterns that signal stress and behavioral disruptions amongst cetaceans (Neves-Graca 2002, 2004, 2006). The metabolic rifts that can occur in such contexts are related to the disruption of a whale’s ability to locate and consume essential nutrients. The invisibility of these disruptions in turn conceals the potential ecological contradictions of market-driven whale-watching business models. Thus they also conceal important continuities between whale hunting and whale watching as historically specific forms of capitalist production. Sadly, this invisibility is most likely reinforced by E-NGO discourses that promote whale watching as synonymous with conservation.

Continuities and Gaps in the Transition from Whale Hunting to Whale Watching

My substantive analysis begins with the historical period of industrial whale hunting in the USA. The core traits of this enterprise stayed constant throughout its 400-year history (eg Bullen 1902; Dolin 2007;
Francis 1990; Mawer 1999; Robertson 1954; Tripp 1938). Since these traits are where one can see the most obvious continuity to whale watching, they are worth describing in some detail. First, whale hunting revolved around the extraction of material goods from whales and transforming them into highly valuable commodities. Two of these commodities, oil and spermaceti candles, were essential to the industrial revolution. In Marxist terms the relationship between humans and whales was a classic example of the metabolic rift that capitalist systems tend to establish with nature: one where “nutrients” are extracted from ecosystems into capitalist markets to the point of compromising the metabolic health of ecosystems—that is, their ecological sustainability (Foster 2000; Marx 1952). When whales became scarce in one place, whalers simply expanded into another.

Class relationships in the context of whale hunting were exploitative to the point of atrocity (Dana 2001; Hohman 1928). A captain might receive 1/6 of the profit of a whaling trip while a whaler might receive as little as 1/250. To make matters worse, every piece of clothing, tobacco, or paper that whalers took from the ship’s store was taken into account once they finally received their share of the profits. Prices for these goods were highly inflated too. Many accumulated such large debts that they hardly saw any pay for their labor.

This reality is directly related to the fetishization of whale commodities. Since the processing of whales occurred on ship, consumers interacted with whale-derived products that were completely removed from the ecological, political and social processes that produced them. With the exception of Melville’s descriptions in Moby Dick, the relation between these goods and the ecology of the animals they were extracted from, or between these goods and the class relations that brought them into existence, remained mostly invisible from the public eye.

Because whales were valued exclusively for their potential transformation into goods with high market value during this period, their aesthetic value was almost never considered. Within this early capitalist logic cetaceans were divided into a hierarchy with sperm whales, the most economically profitable species, at the top. Some captains did not even slow their ships for species that weren’t sperm whales. For everyone who depended on this extractive industry, the only good cetacean was a hunted and processed whale of a particular species.

The emergence of the global fossil fuel economy in the late nineteenth century was the beginning of the end of global whale hunting. Compared to a global economy run almost exclusively on whale-derived products, currently only a fraction of whales are hunted globally every year. Nevertheless, major E-NGOs continue to imply that whales are facing a near extinction crisis due to contemporary hunting. This is in no way
to deny that even in small numbers the hunting of whales today may have devastating effects for the survivability of whales. However, it is important to distinguish between different species of whales because not all are threatened with equally devastating consequences. Of greater concern to me here is that the current commoditization of whales and cetaceans in general is founded on the presentation of whale watching as key to replacing whale hunting as an economic activity.

In reality most whale watching occurs in places where whale hunting was either never practiced or died out long ago. People thus often make fictional historical claims to whale hunting in order to make whale watching viable for their communities. In cases where whale hunting previously did exist it requires converting skills and technology to whale-watching activities, something that local people often recognized and undertook without any external prompting. These transformations are indicative of larger transformations away from material commodities to service-based commodities in the context of global neoliberalism.

As a service-based enterprise, whale watching is intimately associated with the rise in popularity of the environmental movement, and the exponential growth in the demand for eco-friendly commodities that such movements often promote. Most of the world’s largest corporations are stepping up the production of presumed green commodities to satisfy these growing demands. New realms for expansion include ecotourism, spectacle, services and entertainment. I therefore contend that it is equally accurate to view whale watching as a product of shifting market conditions and as the result of more enlightened understandings of non-human natures. Moreover, as previously mentioned, whale watching in some contexts has resulted in new kinds of metabolic rifts.

Understanding metabolic rifts produced by whale watching requires a closer look at cetacean ecology, and especially echolocation. Echolocation consists of emitting sound waves that bounce back to the point of emission once they reach an object. This is how cetaceans find food and navigate within their ecosystems. Sound is also essential to cetacean communication and sociability. Outboard boat engines, which produce high-pitched underwater sounds, interfere with cetacean echolocation and communication. While the extent of these consequences is not fully known, Monteiro (1998) argues that extreme interference, such as that caused by many boats concentrated in a small area, could seriously inhibit cetaceans from finding their food. In any case, underwater noise pollution causes major stress on cetaceans that may have devastating long-term effects.

When this sort of disruption impedes cetaceans from using echolocation to find food over extended periods of time, it might introduce metabolic disruptions that are serious enough to be called a metabolic rift since whales may as a consequence be deprived of crucial nutrients (this would be, as my friend and colleague Luis Monteiro
argued in 1998, particularly acute in the case of the resident sperm whales of Lajes do Pico in the Azores, Portugal—see Neves-Graca 2002, 2004; see also, for example, Hildebrand 2005; Higham and Lusseau 2007; Hoyt and Hvenegaard 2002; Lusseau, Slooten and Currey 2006; Richter, Dawson and Slooten 2006). Over time, this inability to locate food, combined with the stress that noise causes, may even have gravely debilitating, or even deadly, effects.

The notion of a possible metabolic rift in the context of whale watching calls for adjustments to Marx’s understanding and use of the term. Here the rift is not instituted by the extraction of nutrients from an ecosystem but rather from disruptions to the cetacean ability to locate and consume nutrients. Also, the fetishization of the ecological costs of whale watching occurs at the very moment that the consumption of cetaceans takes place, right in front of consumers. It remains, nevertheless, invisible to most consumers. Having conducted extensive participation onboard whale-watching boats in the Azores since 1998, I have learned that the majority of cetourism consumers that travel to the Azores cannot recognize and identify the signs of a metabolic rift in human–cetacean relations. This is not to say that they are ecologically illiterate or insensitive but rather that such signs are indeed hard to identify for the untrained person (Neves 2004, 2006). This situation is likely exacerbated by E-NGO discourses that present whale watching as the diametrical opposite of whale hunting, thus transmitting a false sense of assurance to the average tourist that all whale watching is sound (Benton 1998).

In my field research I have found that the idea of positive synergies between whale watching and cetacean ecology has become commonsensical for whale-watching tourists. Whenever I bring up the notion that whale watching may have negative impacts, most lay people initially react with disbelief and shock to my arguments. Often while interviewing members of E-NGOs I have been told that rectifying this situation is not of their concern, since their primary mission is to end whale hunting through the promotion of alternative economically viable uses of cetaceans. I am quickly informed that sending out mixed messages that whale watching may be good and bad at the same time confuses people and takes away the strength of much simpler anti-whaling slogans.

It is not so much that these organizations are not able to access and understand the kinds of data that challenge reductionist views of the world. In fact, all the E-NGOs I mention in this paper have developed exhaustive and well-conceived codes of conduct for whale watching. Many have also participated in critical assessments of this activity.\textsuperscript{19} However, E-NGOs keep these complex and critical views separate from what the average person sees on their website, which amounts to a simple message that whale hunting = bad and whale watching =
good. This discrepancy is rendered poignant by the fact that “save the whale” campaigns, combined with the marketing of associated high-end whale watching, has become an important source of revenue for these organizations.

This discrepancy is indicative of the types of fetishization that pervades whale watching as an economic activity. Here again, hasty analysis might lead one to think that in the context of whale watching cetaceans are neither fetishized nor commoditized. After all, they are used “just as they exist naturally and in wilderness”.20 This gives the appearance that in appreciating cetaceans during a whale-watching trip one is also appreciating the whole of their ecosystem.

In reality, however, whale-watching trips are constructed in ways that make it impossible to see cetaceans in their full ecological context. Much to the contrary, one sees only part of their bodies and only the surface of the environment in which they live. Moreover, like whale hunters before them, whale watchers construct hierarchies of cetaceans based on their commercial worth. Humpback whales are most popular because of their interactivity with whale-watching boats. Dolphins are also highly valued for their playful and interactive demeanor, especially when children are onboard. Less entertaining species are for the most part left alone.

One outcome of this fetishization is a conflation of the symbolic value of whales with their ecologic value (see Paine 2006). This conflation is especially visible when the ecological value of cetaceans is inflated by E-NGOs for their use in conservation campaigns. A more scientific grounded perspective suggests that whales play a relatively small role in the health and maintenance of ecosystems. From this perspective the value that cetaceans have for humans is their high intelligence and quasi-human capabilities for communication and socialization. Hence, the value of cetaceans seems to be determined by ethical judgments rather than by ecological reality (Heller 2007; Watson 1996).

This conflation of the symbolic and ecological values of cetaceans also contributes to the illusion that little or no human ingenuity has gone into the “transformation” of cetaceans as resources. Because cetaceans are not sold as material resources in the context of whale watching there is a common misconception that they are not commodities in the capitalist sense. This is the basis of the spurious claim that whale watching is a non-consumptive enterprise. I suggest instead that cetaceans are being sold in this context as a new type of commodity. While no longer consumed directly as a material commodity, cetaceans are now providers of ecological services. These include entertainment, amusement, catharsis and even therapeutic healing.

Additionally, whale watching entails a high degree of human technological intervention which amounts to extractive relations with nature even though these too tend to remain invisible in the romanticized
and naturalized presentation of this business. First, whale watching is more often than not conducted with engine boats that rely on fossil fuels and create various forms of pollution, including noise, fumes and oil by-products. Second, ecotourists need to travel long distances to reach whale-watching sites, which again leaves a major ecological footprint since it normally requires airplane travel. Third, most whale-watching companies have developed highly profitable franchise goods such as plush renderings of whale and dolphins, posters, t-shirts, sweatshirts, caps, postcards and an endless array of similar types of branded products that invite ecotourists—most successfully—to continue to engage in consumptive practices that ultimately require an extractive relation with non-human natures.

Finally, whale watching creates new forms of exploitative class relations and uneven distribution of profits, which brings into question the belief promoted by E-NGOs that whale watching automatically promotes community sustainability. For example, because it is a seasonal activity in most places of the world, it creates sub-optimal labor conditions where laborers often find themselves having to live without waged employment for most of the year.

Not all whale-watching businesses are equal: some have greater ecological and social impacts than others, while some of these may even be quite detrimental for both cetaceans and humans. However, this is rarely visible within the context of dominant E-NGO conservation discourses that celebrate whale watching as a fit for all solutions to both ecological and economic problems all over the world.

The Ecology of Business and the Business of Ecology: Two Models of Whale-Watching Enterprise

While conducting research on whale watching I have observed different business models for implementing and conducting this activity, two of which I analyze here. Each business model reflects basic understandings of cetaceans and their ecosystems, as well as premises about the extent to which businesses should aim to secure the economic sustainability of maritime communities (see Neves-Graca 2004, 2006). What these models share at their core is the use of cetaceans to satisfy market demands for entertainment, amusement, learning and therapeutic catharsis. An implicit assumption is that whale-watching companies have the right to profit from putting humans in contact with the animals that provide these services. In short, all whale-watching businesses that I know of are capitalist enterprises, regardless of how much energy they put into justifying their raison d’etre as a means to achieve marine conservation.

Nevertheless, there are also big differences between distinct whale-watching business models and their social and ecological implications.
In order to be able to compare these three different models I consider the following business aspects: market conditions; the type of tourists attracted; existing legislation and/or other factors that affect the behaviors and decisions of whale-watching operators. From the intersection of these aspects emerge different types of whale-watching business, each with very distinct ecological and social implications.

The first of the two models, based on high volume and mass consumption, is characteristic of whale-watching businesses in the Canary Islands. Because they offer access to large numbers of cetacean species, the Canaries were one of the first places where whale watching boomed. The large number of tourists that was already present on the islands, coupled with the absence of strict regulations and enforcement, created conditions under which the number of whale-watching operators boomed exponentially during the 1980s and 1990s. In other areas of the world highly informed ecotourists put pressure on whale-watching businesses to abide by ecologically informed handling of cetaceans. Mass tourism, by contrast, tends to seek ecologically uninformed tourists, looking for a quick thrill ride out to see cetaceans. Hence, zodiacs (with large outboard engines that produce high levels of underwater noise) are the preferred choice of business operators. To make matters worse, the large number of operators puts enormous competitive strains on these businesses to offer low-price tours to large numbers of tourists. This in turn requires them to increase the speed at which they conduct each tour.

The consequences of all this are most serious and for sure not what one would expect from a practice popularly seen as being essentially conservationist. Indeed, the Dolphin Fund warns ecotourists against going to the Canary Islands; even though “whale watching is regulated, harmful impacts occur due to the sheer number of operators. It is recommended to carefully select your operator as the majority of operators is to be considered unqualified”.22 Eric Hoyt says of the Canary Islands that:

we are operating in the dark, with large numbers of boats in some areas spending large amounts of time with the same whales day in and day out. In some cases, the whales may be spending large parts of their day on a year-round or nearly year-round basis with boats of whale watchers.23

He adds that:

the whale watch participant may be spending most of the time watching other boats, rather than actually seeing the whales. It is not unusual to have 40 or 50 boats in the general vicinity of a group of whales, all vying for a look.
These numbers are striking in and of themselves, but they assume alarming relevance when one considers scientific findings concerning the effects that whale-watching boats have on pilot whales—one of the species most popularly observed in the Canary Islands (Glen 2003): “In the presence of one or two vessels, 28% of sightings involved avoidance behaviors, rising to 62% of sightings in the presence of three or more vessels”.\textsuperscript{24} One is left to guess the effect that 40 or 50 boats mentioned by Hoyt may have. Long-term consequences are particularly worrying, given that these are a resident species in the archipelago.

By the time that whale watching was introduced in the Azores, the Canary case was well known, and to a great extent it served as an example of the mistakes that should be avoided. This was in fact a core discussion during the first Biannual Conference on Whales and Dolphins held in Lajes do Pico in October 1998, which brought together business operators, E-NGOS, government authorities, and scientists (Neves-Graca 2002, 2004). As a consequence, one of the main concerns in the Azores at the inception of whale watching was to carefully regulate this activity in order to avoid the presence of excessive numbers of boats in the vicinity of cetaceans. These concerns are reflected in the legislation that was eventually approved by the Azorean parliament.

While it has been difficult for the Azorean authorities to invigilate and enforce the implementation of whale watching, several factors have contributed to prevent the Canary Islands scenario. First, there is an inherent bottleneck in relation to the numbers of tourists that reach the Azores every year. Flight availability is limited as are the number of hotels where tourists can stay. In addition, tourism in the Azores is highly seasonal and restricted mostly between May and October. For these reasons, mass tourism never developed. Moreover, Azorean legislation limits the number of whale-watching licenses that can be issued. Most tourists who come to the Azores for whale watching are attracted precisely because of the absence of mass tourism. Many are highly informed about the potential harm of cetourism to cetaceans, and put pressure on operators to abide by regional law and international whale-watching guidelines. Still, not all aspects of cetourism practice in the Azores are above reproach. Between 1998 and 2000 (ie the amount of time that elapsed between the presentation of the first draft of whale-watching legislation and its approval in parliament) there was a big debate as to whether some areas of the Azorean waters were populated by resident whales and whether these constituted nursery areas. If so, then special precautionary measures would have to be introduced (Neves-Graca 2004, 2006). This would include keeping greater distances from cetaceans, and using inboard engines to mitigate underwater noise pollution. The debate was never resolved, though there was sound evidence in support of the nursery area argument (Monteiro 1998). One of the main unstated worries at the time was that this would result
in lower profits. First, in spite of high levels of ecological knowledge, many tourists desire closer encounters with whales than a precautionary approach would allow. Second, the return on investment on zodiacs is faster than on inboard boats. The debate was put aside without relevant research ever being conducted, and part of the Azorean marine ecosystem thus became invisible due to profit concerns.

The Azorean case also raises some doubt about presumed increased community-level benefits. This is evident in Lajes do Pico, where I conducted most of my research, and which is also the most important cetourism destination in the archipelago. While cetourism has attracted large numbers of tourists to the island, the first few people who invested in whale watching were able to benefit from an advantageous position where they quickly made profits that allowed them to invest in parallel economic activities (horizontal integration in business parlance).

The same company that started whale watching in Pico has bought the main hotel, opened a restaurant, and created a brand that now includes all sorts of whale watching memorabilia ranging from plush renderings of cetaceans, to clothing, videos, books and art. As a result, much of the money that cetourists spend stays mostly in the hands of this company and a rival company that was founded at around the same time. Finally, because of its seasonality, most people who work in whale watching are forced to live on welfare during the off season. This includes not only those who work directly for whale-watching operations but also for the hotels and restaurants. Thus, while whale watching has brought increased flows of capital to the Azores, it is unclear the extent to which the entire community has benefited, especially in a sustainable way.

Concluding Thoughts

The emergence and rapid proliferation of whale watching offers a prime example of one of the roles that conservation has in the production of nature in late capitalism. Many economic investors, politicians and conservation organizations now celebrate the economic use of nature services as the solution to the world’s most pressing environmental problems. This undeniably attractive idea is aggressively promoted by E-NGOs concerned with the protection of cetaceans and their ecosystems. While there is in principle nothing wrong with this notion, it does become a problem when it inhibits a more critical assessment of distinct practices pursuant of ecological goals.

In the case of cetourism, diminished ability to assess the ecological soundness of different practices stems from establishing a clear-cut dichotomy between whale hunting and whale watching. As I have shown, this discursive dichotomy creates potential for blind spots whereby E-NGOs fail to see the continuity of the capitalist logic that links the two activities historically. In failing to see this continuity, they risk being unable to acknowledge the extent to which the goals of most
cetourism businesses are in essence capitalist goals which at times may collide with conservation objectives.

The reality is that in the context of a late capitalist society cetaceans have undergone a very peculiar process of commoditization where they are no longer the source of material commodities but rather the providers of services. Cetacean conservation is increasingly intermingled with the highly profitable business of cetourism. The power of these interests silences alternative voices and makes it all the more important for research on the ecological effects of whale watching to be conducted in different contexts and conditions (as called for by Higham and Lusseau 2007), and for E-NGOs to intervene in cases of poor ecological conduct. Not all cetourism is alike, but distinctions will remain invisible so long as whale watching is presented and approached in homogenized form. The IWC has called for further research in this direction. In the spirit of this initiative, I have sought to show why such research is so fundamentally important and to invite E-NGOs to consider developing more complex presentations of cetourism for the average consumer: acknowledging that the masses are capable of understanding less simplistic messages would do great service to the conservation cause.

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Endnotes

1 I call whale watching “cetourism” in this paper to emphasize the use of cetaceans as economic resources where the logic of neo-liberal markets and contemporary conservationism intersect.
2 In the Azores, for example, the number of tourists going out on whale-watching trips has grown 400% since 1999 (Incentivo 2 August 2009).
4 The IWC is now calling into question these assumptions and is planning to produce a more rigorous assessment of the diverse ecological impacts of different types of whale watching around the world.
5 In no way do I wish to diminish the devastating effects of whale hunting that brought most whales to a near extinction status—this particular aspect bears no comparison to the impacts of whale watching. The point rather is to show that the uncritical acceptance of fundamental differences between these two activities is at the root of the conditions that render the negative aspects of whale watching invisible.

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My knowledge of these models is based on my first-hand fieldwork experience in the Azores, interviews with experts in the field, and interactions with marine biologists at the Biannual Conference on Whales and Dolphins in the Azores in 1998.

I will not be able to provide a critique of assumptions regarding the higher profitability of whale watching in this paper, but I would like to point out that it is highly problematic to make such claims without engaging in a comparative economic analysis of these two commercial activities—including with due inflationary corrections.

Again it must be pointed out that this understanding of the use of cetaceans for research purposes is part of wider historical processes in the context of paradigm shifts in biology. During the whale hunting period, and even well into mid twentieth century, marine biologists—as biologists in general—relied heavily on the dissection of whales as their main source of data on these animals. Thus, marine biologists were often found conducting research in places where whaling was still practiced (see Neves-Graca 2004, 2006). The discourse that promotes research among living cetaceans is therefore a reflection of recent historical transformation whereby the interests of whale-watching enterprises are as aligned with those of scientists as were the interests of whale hunters and those of classic modern marine biologists (Neves-Graca 2004, 2006).

The use of the term overfishing is ambiguous in this context because it is unclear whether it refers to the overfishing of whales or of the fish that cetaceans prey on. This is because for many years whaling was called “whale fishery” due to a dispute as to whether cetaceans are fish or mammals.

I find it important to note that translated literally from German, the word is actually composed of two words as “material (nutrient) and swapping” which places great emphasis on the dynamic aspects of the process.

For further critiques of Foster and for a rebuttal by Burkett, please see June 2000 edition of Capitalism, Nature and Socialism.

There was also a temporary resurgence in the global demand for spermaceti during the two world wars and during the Korean War.

I have also identified a third whale-watching model which is best illustrated by the Hawaiian case. Indeed, Hawaii has created a whale sanctuary where whale-watching regulations stipulate that this activity must be first and foremost concerned with the welfare of whales, and only then with profit.

I find it important to note that at the time Eric Hoyt wrote this reply to a query, he also called for a precautionary approach to whale watching given that studies on the long-term effects of this activity on cetaceans were not yet known.
25 This argument is based on a business model analysis that was done by Dr Guerra in 1996 for a local whale-watching company (Baleias a Vista) and which was shared with me by two of the company’s owners.

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