



# REPRESENTATIONS AND ADAPTATION TO CLIMATE CHANGE

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**Abstract:** Tourism representations evoking stable and pristine landscapes are increasingly challenged by environmental degradation, exacerbated by climate change, as well as tourists' use of online travel networking sites. This study examines this statement by juxtaposing brochure content produced by 12 hotels located in Playacar, Mexico – a coastal tourism enclave devastated by biophysical changes in the natural landscape – to online tourists' co-constructions of the same landscape. The findings reveal that despite the biophysical changes, the industry continues to promote essentialist representations and tourists are increasingly using online networking sites to counter these dominant promotional narratives. It is argued that promoters will need to embrace non essentialist frames that portray landscape dynamism and the inextricable co-evolution between humans and the environment. **Keywords:** adaptation, beach erosion, climate change, essentialisms, representations. © 2009 Elsevier Ltd. All rights reserved.

## INTRODUCTION

Tourism depends on natural resources such as jungles, forests, mountains, rivers, lakes, beaches, coastlines as well as the vistas and weather conditions associated with many of these landscapes. These resources are in many ways crucial to the “attraction potential of most destinations” (Gössling & Hall, 2006, p. 1); consequently, tourism promoters produce representations that overemphasize the iconic elements of these natural landscapes (Hughes, 1998). A key criticism within tourism representations literature is that destination portrayals often

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conjure up myths and expectations that influence how tourists perceive the promoted destinations (Buzinde, Santos, & Smith, 2006; Dann, 1996; Dilley, 1986; Echtner & Prasad, 2001; Morgan, 2004; Pritchard & Morgan, 2000; Santos, 2004; Selwyn, 1996). Although research in this area has been instrumental in highlighting the 'hyperrealness' of tourism representations, studies that examine the industry's representations of increasingly changing natural landscapes (e.g., rapidly eroding coastal landscapes) have remained scarce. It is argued that the production of essentialist representations that portray stable, pristine and favorable natural environments will be increasingly undermined and threatened by global climate change; a phenomenon with the potential to alter the biological and morphological structures of natural landscapes within relatively short periods of time (Buzinde, Manuel-Navarret, Yoo & Morais, in press; World Tourism Organization, 2003).

The tourism sector recognizes that the world's climate will directly impact natural landscapes (Becken & Hay, 2007; Wall, 1998). Although destinations will be differentially affected, scholars claim that coastal and mountain landscapes, which are vital for tourism activities and for local and regional economies, are at the greatest risk (Scott & McBoyle, 2007). For instance, tourism dependent on coastal landscapes, from hereinafter referred to as coastal tourism, may suffer grave damage from the effects of climate change through rising sea levels, higher storm surges, more extreme temperatures, and changes in precipitation patterns (Moreno & Becken, 2009; Nicholls & Klein, 2005). In fact, beach erosion has been identified as one of the most pressing and dramatic manifestations of climate change (Phillips & Jones, 2006; Schlepner, 2008). Although erosion may occur in the absence of climate change due to alterations of sediment flows induced by urban and touristic development (see Baldwin, 2000), climate change can exacerbate extant environmentally degraded areas. Of course, there are numerous uncertainties regarding the exact mechanisms through which climate change may increase the intensity of beach erosion; however, there is mounting evidence pointing to the existence of a relationship between climate change effects (i.e., sea level rise, intense storms, coral bleaching) and beach erosion (Cambers, 2009; Buzinde et al., in press).

Tourism studies on global climate change highlight the vulnerable and *unstable* elements that will characterize numerous natural landscapes (Craig-Smith, Tapper, & Font, 2006; Elsasser & Bürki, 2002; Gómez Martín, 2005; Gössling, 2006; Hall, 2006; Hamilton & Lau, 2005; Johnston, 2006; Scott, 2006; Uyarra et al., 2005). A key argument within this body of work is that not only is nature constantly shifting but change is also continually occurring in the relationships between humans and nature (Manuel-Navarrete, Gómez, & Gallopín, 2007). This statement has numerous implications for the tourism industry because promoters, with some exceptions, unrealistically assume a static human-nature relationship. Consequently, tourism landscapes tend to be portrayed as stable and controllable. It is argued that tourism promoters will be increasingly faced with questions such as "what happens

with touristically desirable natures when [they] are subjected to global... [climate] change” (Cederholm & Hultman, 2006, p. 294)? How do tourism promoters portray degraded natural landscapes for touristic consumption? Do their representations depict images of once pristine environments that no longer exist simply to attract tourists? Do they merely highlight material attributes (e.g., accommodation services) and remove the affected natural areas? Do they portray the raw nature of the affected areas and concurrently transform the ways in which tourists aesthetically perceive of natural landscapes? And, lastly, how do tourists discursively co-construct these industry productions? One of the key points proposed in this paper is that addressing these issues requires an in-depth understanding of the tourism production and co-construction processes.

Tourism production, in this sense, involves the act of constructing destination representations by tourism promoters according to their marketing criteria. Co-construction occurs when the tourist plays an active and effective discursive role in this production process. Traditionally tourists have played a passive role in the production process and therefore co-construction has been largely absent. In this context, promoters have tended to assume that tourists will decode essentialist portrayals by uncritically adopting dominant frames (e.g., pristine beach environments). However, empowered tourists might co-construct these frames by acquiescing, negating or negotiating them. Overlooking the role of the empowered tourist has to a great extent been based on the assumption that (dis)pleased tourists spread their positive and/or negative accounts to relatively small groups of family and friends. In this sense, the power of word of mouth is seen as inferior to the power of advertising and promotion, reinforcing the cliché “any publicity is good publicity.” But in the age of technology and the influence of the World Wide Web, such simplistic views of human behavior are obsolete; particularly given that tourists are increasingly using online information sharing venues to post their experiences, whether positive or negative.

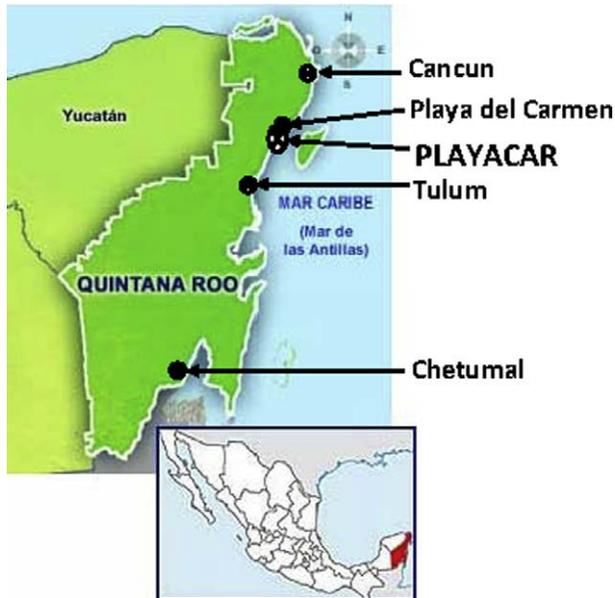
Trip Advisor®, a consumer generated website that hosts over 30 million customer reviews a month and showcases tourist reviews and travel information on over 400,000 destinations worldwide, is a key website wherein tourists’ co-constructions are evident (Briggs, Sutherland, & Drummond, 2007). On Trip Advisor®, as well as other networking sites, tourists reflect on industry productions, their own experiences and perceptions, and thus, proceed to post accounts that support or negate the portrayals constructed by tourism promoters. This content should be of concern to tourism promoters because it has the ability to influence the travel decisions of potential tourists worldwide. In the current inquiry, it is assumed that tourists’ posts on Trip Advisor® play a role in the production process. In fact, sites such as Trip Advisor® are becoming increasingly important locations within which dialogic processes between tourists and promoters occur as both vie for meaning. This view has been acknowledged by many hospitality firms who have hired individuals to monitor online postings (President of the Riviera Maya Hotel Association, personal communication).

In the context of tourism representations and climate change, co-construction may be considered an important tool for the adaptation of the tourism industry to the changing environment; an element that has yet to be examined by scholars. Thus, the purpose of this study is to explore how tourism promoters are adapting to biophysical changes in the natural landscape through their representational strategies and how tourists are co-constructing these spaces. The study is guided by two overarching questions: how are at-risk coastal landscapes discursively constructed through promotional material and how do tourists co-construct these locales through posts on Trip Advisor®? This is an important undertaking because the challenges that global climate change brings to the representational strategies of the tourism industry are numerous. This study attempts to understand this phenomenon through the production and co-construction of tourism landscapes. It draws on tourism cultural representations as a conceptual framework extending this perspective to a natural environment where it is linked to extant studies on climate change. By highlighting the connection between tourism representations and adaptation to climate change, this paper expounds upon theories of tourism representations by highlighting the crucial link between culture and nature.

### *Study Site*

Playacar, a coastal enclave located on the Mexican Caribbean coast, 50 miles south of Cancun, is the site on which this inquiry is based (see Figure 1). For the last four decades, this coast has been fuelled by an economy extremely specialized and dependent on tourism. Playacar is a popular all-inclusive gated community showcasing 14 colossal all-inclusive hotels of which 12 are located right along 4 km of continuous beach. Today, there are approximately 6,000 rooms, most of which belong to hotels associated with Western transnational corporations, plus hundreds of vacation homes and guest apartments. Playacar is enduring local processes of environmental degradation that have arguably been intensified by global climate change. The area's environmental history has featured four stages: "a 'wilderness' discovered by archeologists, 'wild forest' full of exotic stands of trees ripe for commercial exploitation, an 'abandoned space' utilized by pioneer hoteliers and, today a 'tropical paradise' promising escape to international tourists" (Redclift, 2006, p. 174).

The last phase, "tropical paradise" has been captured in travel magazines, televised programs, brochures, and websites, consequently converting the space into a commodity of consumption for westerners (Torres & Momsen, 2005). The promoted images conveniently excise the perimeter wall which spatially segregates Playacar from the surrounding towns. Locals, unless they are part of the service industry (e.g., maids, janitors), are prohibited from entering the premises or using the beach. Thus, based on the visibility of one's aboriginal features, some Mexicans are barred from entry by the guards on duty. Many locals travel to the region for miles in hope of securing gainful



**Figure 1.** Map of the Study Area. (Source: Adapted from Cuéntame de México <http://www.cuentame.inegi.org.mx>)

employment in the tourism industry. The meager tourism wages relegate them to the town's hinterlands where their humble settlements are hidden from the tourist gaze. It is within these conditions that Playacar emerged in the 90s as a coastal playground for the privileged, a site of social struggles for locals and, increasingly, a landscape of environmental chaos.

Over the years hotels in Playacar have been built on the sand dunes fronting the sea. Such poor planning has had adverse impacts on the beach morphology, altered the natural dynamics of sediment distribution and, as a result, impaired the capacity of the beach-related ecosystem to weather the effects of tropical storms. By 2005 the 4 km sandy shoreline was steadily receding. This form of environmental degradation is certainly not unique to Playacar. Other tourism destinations with similar problems include: Waikiki, Hawaii; Isle of Palms, South Carolina; Point Reyes, California, to a name a few (Moore, Benumof, & Griggs, 1999; Morton & McKenna, 1999). In the Mexican Caribbean, beach erosion has been likely accelerated by climate change due to the increase in the number of intense storms landing in the area (Manuel-Navarrete, Pelling, & Redclift, 2009). Indeed, intense storms in the North Atlantic have dramatically increased since the 70s and the average temperatures of the Atlantic Ocean and Caribbean Sea are on the rise (Webster, Holland, Curry, & Chang, 2005).

These climate change effects have had adverse impacts on the coastal landscapes across the Caribbean and elsewhere (Cambers, 2009;

Phillips and Jones, 2006). In the case of Playacar, these effects have arguably exacerbated the on-going processes of beach erosion, leaving the morphology of the beach in a dire state. For instance, the 2005 hurricane season was particularly severe and broke all documented records with more than 26 named storms and 14 hurricanes in the Atlantic basin (Kantha, 2006). In fact, 2005 was a particularly problematic year as two major hurricanes, Emily in July and Wilma in October, made landfall close to Playacar. As a result, the shoreline receded to the point of creating steep two to three meter cliffs into the sea (see Figure 2). Some hotels built temporary stairs out of rug sacks filled with sand to enable tourists to safely descend (see Figure 3). This was a drastic change for an area that once showcased wide sandy beaches with a smooth, gradual incline into the water.

In 2004 the local hotel association commenced dialog with Mexican authorities in order to address the issue of beach erosion and to convince the government that it should assume the cost of restoration, as was the case in Cancun. In response to the government's hesitance the hoteliers attempted to convince municipal officials to create a monetary pool, derived from an additional hotel tax that would fund the replenishment of the beach. This suggestion was strongly rejected on many fronts, particularly by tourism stakeholders (outside of Playacar) who refused to assume a cost induced by the lack of planning on the part of multinational corporations. In 2005, after the situation became worse, Playacar hoteliers took



**Figure 2. Beach Erosion Induced Cliffs**



**Figure 3. Temporary Steps to Facilitate Descent**



**Figure 4. Dredging Pipes Along the Beach**



**Figure 5. Geotubes Litter the Beach (Source: Norticaribe)**

matters into their own hands and they each devised and implemented their own beach replenishment projects aimed at restoring certain parts of the shoreline with complete disregard towards the whole (see [Figures 4 and 5](#)). By 2008 Playacar's once sandy shoreline was littered with large, orange dredging tubes and gigantic geotubes (aka, "whales") and the tranquil sound of the waves was muffled by the cacophony of numerous generators that powered the dredging machinery. These restoration measures are clearly temporary, expensive and require constant attention, particularly given the frequency of intense storms. Although the morphological changes have been severe, pundits predict that they are merely a beginning of what could potentially become an environmental disaster exasperated by global climate change (Zhang, Douglas, & Leatherman, 2004).

### *Study Methods*

Brochures are one of the main forms through which hotels produce and disseminate portrayals of various locations and they as such are an ideal medium through which to explore representations of landscapes. This inquiry focused on brochures produced by 12 beachfront properties located in Playacar (i.e., Playacar Palace, The Reef Playacar, Viva Wyndham Azteca, Occidental Allegro, Occidental Royal Hideaway, Riu Playacar, Viva Wyndham Maya, Riu Palace Riviera Maya, Riu Palace Mexico, Riu Yucatan, Iberostar Quetzal, and Iberostar Tucan). There are fourteen all-inclusive hotels in Playacar; the chosen sample of twelve represents hotels with close proximity to the environmentally

degraded shoreline. The brochures were obtained between December 2007 and November 2008 directly from the respective hotels. Numerous promotion materials (e.g., chain catalogues and local brochures) with the same information were available therefore, but to ensure consistency, only one brochure from each hotel was analyzed. Each brochure had approximately four to five images; thus, a total of fifty-five images were analyzed.

The selected hotels are very similar in size (average of 400 rooms per property) and have adopted the “all inclusive” model; however, they differ based on clientele (e.g., families, couples, upper class and/or middle). In terms of how the hotels were represented in the brochures, the beach was the most prevalent pictorial representation (38 images) followed by local amenities such as a bar, a pool, rooms (8 images), and local shopping opportunities (9 images). The focus of the analysis was on the beach oriented images given their ability to illustrate how the area was framed by tourism promoters as a desirable location for tourists. This analysis primarily focuses on the social construction of the coastal landscape and questions the representations of an “external reality” (Willems-Braun, 1997). It does not account for prominence of image based on location (i.e., front cover or back cover) nor does it take into consideration historical representational variations. Both pictorial and discursive beach related representations evident in the brochures were analyzed.

In order to understand the production process one has to take into account the consumers and their views. Tourists’ posts on Trip Advisor® are a novel way through which to explore consumer viewpoints; in fact, this site is important to tourists and promoters. From the tourist viewpoint, the site is unique because it promises unbiased sources of travel related information. This paper is part of a larger study in which interviews with tourism officials and Playacar tourists (published elsewhere) revealed that many visitors had been encouraged by travel agents or tour operators to browse through Trip Advisor® prior to departure in order to get acquainted with the landscape changes; while others were merely accustomed to checking the site prior to any trip. From the perspective of tourism promoters, the site might be a concern given its ability to *negatively* influence the travel decisions of potential tourists worldwide. In fact, this last statement is consistent with the views of the Playacar hotel association because they assert that beach erosion became an *urgent* problem, to the hotel industry, when the issue appeared in postings on Trip Advisor®. Evidently, prior to that tourists were complaining and tour operators were cancelling packages but, at the time, these incidents were not considered significant enough to affect the hotels (President of the Riviera Maya Hotel Association, personal communication).

Some might argue that Trip Advisor® posts are biased and only offer extreme viewpoints but the fact is that they can potentially complement or counter millions of dollars in promotion and produced representations. They may not be representative of the entire tourist experience but they present a rhetoric that the industry has tried to render subliminal. Thus, the question of enduring interest is not

how many people have posted or how representative they are, but rather what is the nature of the posts featured on this influential website. Research on Trip Advisor® revealed that 88 posts were available for the selected hotels, but 13 of the posts were devoid of any beach information and thus excluded from the analysis. To ensure that the information was current, only reviews posted from December 2007 to November 2008 were incorporated. Tourists were not consistent in their provision of demographic characteristics as such this formation was omitted. It should be noted that this paper is part of a larger study examining adaptation to climate in the Mexican Caribbean. Where necessary, information from the larger project, such as interviews with key informants (i.e., President of the Riviera Maya Hotel Association), is incorporated in to this paper to ground the discussion in the local context.

### *Analytical Procedures*

Textual analysis was the analytical tool used to examine the hotel brochures as well as the tourists' posts. Textual analysis moves beyond the denotative messages within texts to explore the connotative meanings (Fairclough, 2003). Texts within such analyses might encompass "words or phrases such as responses to structured interviews...or more lengthy segments" like those within written documents (Schwandt, 2007, p. 289). This type of analysis adopts an interpretive reading of texts and regards language as a medium through which dominant ideas about the social world are defined. This method has been adopted within the tourism literature given its ability to reveal the intricate ways in which language is linked to the social world (Buzinde & Santos, 2008; Santos, 2004). In the current inquiry the analytical process occurred at two levels, macro and micro, following Fairclough's (1989) framework. At the *micro-level*, the analysis deals with the syntactic, metaphoric and rhetorical devices while the *macro-level* focuses on the intertextual meanings by linking text to broader issues that influence it (i.e., linking representations to tourist perceptions).

The micro-level analysis, started with the preparation of the raw data, which mainly involved categorizing the data to facilitate cross comparison, highlighting of certain aspects, and the documentation of researcher comments. The initial step entailed scanning brochure content and downloading tourists' posts into a data file. The second step involved a prolonged review of the printed transcripts with the goal of better understanding the nature of the tourism portrayals produced by promoters and the constructions devised by tourists. This step also focused on the measures of inclusion and exclusion within textual constructions. The interpretation aspect of this stage was mainly concerned with the processes through which texts depicted a certain reality rather than whether the texts contained erroneous depictions. The prolonged reading was undertaken while concurrently taking into account the purpose of research (Hall, 1975). For instance, immersion in the brochure data suggested that promoters veered away

from discussions about the degraded environment, as such attempts were made to explore that which was predominantly highlighted within the produced representations. The third stage entailed an even closer reading of the text accompanied with a preliminary detection of emerging themes.

The coding process described by Miles and Huberman (1994) was adopted to identify emergent themes. Within the theme identification process, words, phrases, sentences, or paragraphs that belonged to the same theme or topic were clustered together allowing for the development of the theme. The brochure analysis revealed that the beach was represented through a “Pristine Seaside” theme. In ensuring coding consistency, phrases such as “spectacular beach,” “scenic views,” and “beautiful white sandy beaches” guided the identification of narratives associated with the theme “Pristine Seaside.” The representational images and discourses were not simply viewed as “transparent reflections of ‘nature itself’” but rather as “texts organized through a particular optic” (Willems-Braun, 1997, p. 19).

Conversely, two themes emerged from the analysis of the tourists’ posts, namely, “Constructions of Dystopia” and “Constructions of a Negotiated Utopia.” In further ensuring coding consistency, phrases such as “not attractive” and “assault to the eye” guided the identification of narratives associated with the theme “Constructions of Dystopia” while expressions such as “fun to climb” and “great diving platforms” steered the classification of narratives affiliated with the theme “Constructions of a Negotiated Utopia.” Lastly, the use of independent coders to cross-check the findings and emergent themes was adopted to ensure credibility and plausibility in this study. The coders coded each unit based on identified and agreed upon categories with the expectation that they would add to the preexisting categories if they encountered data that suggested the creation of new ones. In the macro-level analysis the three emergent themes were juxtaposed to the overall larger framework of the study. This involved connecting the findings to the socio-political context of the environmental region in question. In essence, this step facilitates the avoidance of linguistic reductionism and grants the study more plausibility and credibility (Hall, 1975).

#### *Industry Constructions of Playacar: Pristine Seaside*

The most recurrent portrayals were aerial and close-up images of the beach and the built resort structures. The focus on the seaside is not surprising given that the Mayan Riviera Region in which Playacar is located is strategically branded as one of the best Caribbean coastal destinations (Clancy, 2001). Images featuring amenities such as a pool and surrounding grounds as well as images of local shopping opportunities were also present although they were far less ubiquitous compared to the coastal depictions and were not the focus of this inquiry. The brochure portrayals of Playacar offered a pristine frame of the coastal landscape; there was no depiction of the eroded beach nor the geotubes

and the dredging pipes that laced the shoreline. Pristine environments were symbolized through numerous scenes of enchanting coastal landscapes, *expansive* white sandy shorelines with wide beach crescents, luxuriant growth of palm trees, and depictions of vivacious colors against the backdrop of sun kissed turquoise water that melted into the clear blue skies (Figure 6).

Coconut trees standing alongside constructed palapas (i.e., thatched roof umbrella stands) symbolized the exotic element of the coastal landscape. The beach was systematically represented as a picturesque, static, immaculate locale, consistent with the promotional frames of most costal tourism destinations (d’Hauteserre, 2006; Goss, 1993; Terkeli, 2006). Furthermore, Playacar’s beach was presented as a convenient and exotic extension of the built structure. The background predominantly depicted the built environment while the foreground showcased the pristine natural environment, that is the beach. This was a prevalent strategy that conveyed the comfort of the urban juxtaposed against the exoticism of the pristine beach. In a sense nature was shown to be as tamed as the built environment; a notion that is, in part, reflected in the adaptation measures undertaken by local tourism officials (replenishment efforts undertaken to force nature to adhere to the essentialist representational strategies as opposed to the other way round).

The adopted discursive representational frames were not unlike those evidenced in the pictorial analysis as both adhered to portrayals of a pristine beach environment. Various descriptors that denoted/connoted the over abundant pristine nature of the seaside were iteratively incorporated within the portrayal of the beach. The essence of



Figure 6. Pristine Seaside (Source: Playacar Brochure)

the beach was captured through a variety of phrases with adjectives such as beautiful, spectacular, wide, long, scenic, fascinating, to name a few. Exemplars of such promotional discourse entail excerpts such as the following: “A large line of palm trees encircles the stunning beach and provides for a shade spot, away from the Caribbean sun” (Riu Playacar brochure); beautiful white sandy beaches of the Mexican Caribbean” (Sandos Playacar brochure); “a spectacular strip of beach in the Mexican Caribbean” (Royal Hideaway brochure); “scenic views of the beautiful sandy white beaches of Playa del Carmen” (Playacar Palace brochure); “fascinating sandy beach of Playa del Carmen, surrounded by palm trees” (Riu Yucatan brochure); “most beautiful beach of the area” (Sunset Fisherman brochure); and “magnificent beach of fine white sand” (Iberostar Quetzal Playacar brochure); “The resort opens onto the most beautiful, wide stretch of beach on the Yucatan Peninsula” (Royal Hideaway brochure); “Laid out along beautiful wide, white-sand beaches” (Viva Wyndham Azteca brochure); and “it faces a picturesque long white sand beach strip” (The Reef Playacar brochure).

In essence, the constructed discursive representations complemented the pictorial portrayals, albeit they obfuscated the dire state of the beach. Although misrepresented, it is important to note that the images capture some of the most scenic and spectacular (based on Western desires and aesthetics) landscapes that the Playacar coast once offered. In fact, this particular beach is remembered by many locals as having been “one of the most beautiful beaches of the Caribbean” showcasing “about 40 to 50 meters of wide, sandy shoreline” (Personal Communication 2008). It can be plausibly argued that the landscape was constructed according to idyllic images that satisfy the tastes and desires of western consumers (Goss, 1993). The analyzed texts were a set of subjective and romantic images that pictographically promoted artistic scenes of a beach “paradise” (Carlson, 1998). Notably, they portrayed an “appearance of order” that seemed “to emanate from nature itself, rather than from the ordering of appearances in representational practices” Willems-Braun (1997, p. 15). In essence, they did not reflect nature but rather they are constructed hyperreal imaginings that invited tourists to gaze upon as the real.

### *Tourists’ Constructions of a Dystopia*

Despite the picturesque portrayals of the beach promoted by hoteliers, tourists deconstructed and (re)constructed the Playacar through accounts posted on Trip Advisor®. A key emergent theme encompassed tourists’ accounts that offered narratives counter to the preferred, idyllic frames promoted by hoteliers. For instance, discussing the unattractive nature of the beach, one tourist said: “the beach had these huge sand bars just off shore that looked like two beached whales...they just were not attractive when you compare it to the beauty of the rest of the resort” (Riu Palace tourist). Another tourist

described her experience by stating that “the beach is blocked with HUGE, BLACK sand bags. . . which took away from the beautiful ocean view” (The Reef tourists). Tourists also spoke of the ubiquity of the issue: “All the hotels. . . have these large sand filled bags in the water that take away from some of the beauty” (Iberostar Quetzal tourist); “I walked the beach one day. . . and the entire beach is littered with these sand whales, an assault to my eyes!” The beach thus, seemed to be the main factor that negatively impacted the experiences of some tourists, as was confirmed by one tourist who said: “I would really give it an excellent rating on everything, except for the beach area which was pretty much nonexistent” (Playacar Palace).

Many of the tourists who posted reviews had not been aware of the beach erosion and/or the beach replenishment efforts taking place in Playacar. Expressing sentiments of deception, one tourist stated: “had I known I would have gone somewhere else. . . I felt completely cheated as the beach was my reason for vacation” (Occidental Royal Hideaway). One individual mentioned that the entire experience was “anything but a pleasure” and suggested that tourism official’s “marketing is very misleading” (Riu Palace Riviera Maya tourist). Similarly, other tourists also wished they had been informed: “we were very disappointed . . . our travel agent hadn’t warned us about the beach erosion and sand whales” (Wyndham Maya tourist) and “We had no idea, the beach sucked, the whales are everywhere” (Riu Yucatan tourist). Despite the promoted expansive beach portrayals, tourists spoke of the inadequate width of the beach. For instance, some tourists’ accounts included statements such as: “Downfall was there isn’t much of a beach” (Playacar Palace tourist); “There really is no beach to speak of. . .” (Iberostar Quetzal tourist); and “The beach area is extremely limited” (Occidental Allegro tourist). Not only did these individuals discursively construct Playacar in a manner counter to the images constructed by tourism promoters, they also pictographically captured the dire state of the beach to accentuate their accounts. The images they posted showcased the shoreline with the scattered orange dredging pipes, the geotubes and the eroded beach. Many of the tourists gave advice to potential tourists: “if you are like me and beach is THE most important thing, don’t look anywhere near Playacar!” (Sandos Gala tourist). Another tourist advised, “If a pristine shoreline is of extreme importance to you I would say you might want to think hard about this place. . . all the hotels along this stretch have the same problem” (Riu Palace tourist).

### *Tourist’s Constructions of a Negotiated Utopia*

Another emergent theme revealed that some tourists were aware of the less than ideal nature of the beach yet were able to substitute this shortcoming with other elements of added value. For example, one tourist mentioned: “Unfortunately at the water’s edge there are large geo-textile sand bags . . . this didn’t bother me much because the bags provided a diving platform” (Sandos Gala tourist). Similarly, another

tourist said, “The beached whales some people don’t like them, but we found them to be fun! We climbed on them and challenged ourselves with “king of the mountain” activities. They were somewhat difficult to climb up on but fun just the same” (Iberostar Quetzal tourist). Other examples of the fun factor included accounts such as: “At first the sandbags are an eyesore (my g/f thought at first they were real rocks) but then you kind of ignore them and you can also have a lot of fun trying to climb them as the surf hits you” (The Reef tourist); and “The hotel has placed huge black sand bags in the ocean that look like whales. They were so much fun to climb on top of and jump off into the water. Great fun for all ages” (Riu Palace tourist).

Some tourists veered away from the sea and instead structured their activities around the hotels’ built environment, particularly the swimming pools. Such experiences were captured in the following accounts: “The beach situation is unfortunate but it is what it is. . .we were perfectly content floating in the pool and looking at the incredible turquoise ocean” (Viva Wyndham Maya tourist); “We found ourselves enjoying the beach less. . .and using the pool more which made up for things”; and “We ignored the beach after a while and we just enjoyed the pool and it was very refreshing, exotic and beautiful” (Occidental Royal Hideaway tourist). These individuals created their own source of entertainment that allowed them to transform a negative aspect into added value for their vacation experience. In both cases, tourists were aware of the discrepancy between what they expected vs. their experienced reality. They constructed the landscape in a manner incongruous with the representational frames adopted by local hoteliers; a notion that tourism promoters ought to take into accounts. Tourist perceptions offer much needed insight into how promoters can adapt their representational strategies when faced with the task of marketing environmentally degraded areas; a discussion of this statement is presented in the subsequent section.

### *Representational Strategies and Adaptation to Climate Change*

The analysis of promotional brochures indicated that the representational strategies adopted by Playacar hoteliers tended to stage the beachfront environment by drawing on pristine portrayals of the natural environment through images that evoked paradisiacal tropics. This was accomplished through pictorial and discursive accounts of a beautiful, expansive, lush, seafront. These representational frames complemented the idea of urban comfort and abundance of material consumption set against the backdrop of exotic beaches. Furthermore, the frames invited tourists to encounter Playacar through a well organized, static optic. Nature was disciplined through ideologically encoded representations that ignored the disruptive elements of natural erosion (Oliver, 2000). In this study the data suggested that hoteliers had failed to modify their representations to better reflect the biophysical changes taking place on the coastal landscape or the strategies being used to cope with such changes. Hence, their representations

led to the construction of hyperreal imaginings which portrayed brilliant, rich and exciting information pliant to the desires of potential vacationers, but blatantly unrealistic (Borgmann, 1992). Indeed, (Eco, 1986) postmodern notion of hyperreality is relevant to the current discussion. This postmodern principle holds that texts can be referred to as hyperreal when the connections between that which is “real” and that which is mediated or represented disappear, rendering them meaningless (Baudrillard, 1993; MacCannell & MacCannell, 1993). Hyperreality is thus a contrived or exaggerated represented reality that passes as objective.

It is important to note that this focus on hyperreality is not unique to hoteliers or tourism destinations in Mexico; it is endemic to the tourism industry. Numerous tourism destinations purposefully “remove modern-day litter...from their resort beach fronts...and add...‘natural’ features such as palm trees...to (re)create a picturesque landscape suitable for the tourist gaze” (Law, Bunnell, & Ong, 2007, p. 144). However, because of increasing technological innovations, tourism officials will have to revisit their essentialist representations of affected/at-risk tourism landscapes. This is because contemporary tourists have moved beyond the official destination representations (e.g., brochures) to less traditional media, such as Trip Advisor®, in search of information that provides “unbiased destination reviews” and allows them to also co-construct their own versions of the landscape upon return. As evidenced in the findings, some individuals felt that the adaptation measures taking place on the coastal landscape did not hinder their tourism experience. In many ways the findings revealed that tourists’ co-constructions challenged the essentialist representations. As active recipients of representational material, they noted the discrepancy between the promoted portrayal and “reality.” For some, an ethical threshold had been surpassed and they felt swindled. Yet others, also cognizant of the incongruity, were somehow able to reconcile by supplanting alternative elements onsite. Notably, both perspectives offer new avenues from which tourism promoters can pursue future representational strategies.

The maintenance of essentialist representations can be seen as a form of denial of the dynamic reality that is hindering hoteliers from coming to terms with the receding beach. This denial strategy may have been successful when tourist arrival numbers were normal. However, the complete disappearance of the beach and representational dissonance has, in fact, prompted international tour operators to request price discounts (Personal communication 2008 – Hotel Association executive). Because discounts are only valuable for a limited period of time hoteliers have undertaken measures to ensure that reality is (re)constructed in a way that is concordant with essentialist representations (i.e., efforts to reconstruct the beach). This has allowed for temporary relief of beach erosion and enabled hoteliers to continue attracting tourists; however, dissonance with the promoted image has not been resolved as the beach ‘under construction’ is far from picturesque (e.g., the scattered geotubes and dredging pipes).

Adaptation to climate change is often regarded as the formulation of explicit strategies and policies to reduce vulnerability to climatic variability (Adger, Huq, Brown, Conway, & Hulme, 2003; Klein et al., 2007). The overall goal is to protect and enhance the development process from a set of impacts that are generally conceived of as external and unrelated to development itself. This leads to the implementation of protective measures such as engineering restoration (Becken, 2005). The success of these often complex and always expensive measures requires sound governance structures through which long-term planning and public-private collaborations can come to fruition (Baker & Refsgaard, 2007). The absence of such structures in Playacar forced hoteliers to take matters into their own hands as they tried to reconstruct the beach. The unsustainability of these uncoordinated measures indicates that an obvious form of adaptation in Playacar would consist of improving governance in order to implement longer-term beach management efforts. However, as it is increasingly acknowledged in the climate change literature, adaptation based on engineering, quick-fixes, and one-off interventions might not suffice. Instead, the more holistic notion of “adaptation capacity,” commonly described as the “forces that influence the ability of the system to adapt” (Smit & Wandel, 2006, p. 287), has to be taken into consideration.

Adaptation capacity challenges the very process of development as it seeks to alter the flows of resources, knowledge, or technology; the changes in organizations, institutions and administrative bodies; the social learning processes; and, any form of human, social or political capital (Eakin & Lemos, 2006; Pelling & High, 2005; Pelling, High, Dearing, & Smith, 2007). The case of Playacar highlights the significance for climate change adaptation of representational strategies. On the one hand, it points to the potential of implementing non-essentialist strategies that acknowledge the accelerating environment change occurring in the portrayed tourism destinations. On the other hand, it highlights the importance of paying further attention to the ways in which the relationship between humans and nature are idealized. Idealizations based on a neat separation between the urban lives juxtaposed against the exoticism of pristine beaches will increasingly be rendered unrealistic as global climate change reminds society of the inextricable co-evolution between humans and the environment.

This study has numerous implications for tourism destinations facing morphological landscape changes due to global climate change. First, as tourism providers adapt their representation strategies to account for morphological changes, they will have to consider a number of options. One option entails re-framing representational essentialisms (e.g., change in emphasis from beach to accommodations) in the hope that tourists will still be drawn to the site. This option requires removing the pristine and stable images of the natural landscape and replacing them with images that focus on physical attributes such as a big hotel swimming pool, luxurious hotel pubs and restaurants, and/or nearby shopping centers. Alternatively, tourism providers can ensure that the biophysical reality matches its constructed essentialism. Such adaptability measures might include replenishing the beach through

dredging so that it mirrors the idealized representation. In this case, maintaining the essentialist approach in the advent of an impact implies stabilizing the natural environment to the desired and promoted essentialist images.

Lastly, another approach might entail a non-essentialist representational strategy depicting the raw reality of environmental degradation while concurrently illustrating the adaptability measures in progress. A non-essentialist strategy implies creativity in terms of constructing adaptive representations that award the affected landscapes with new meanings and uses (e.g., using the “whales” as safe recreational tools for tourists while protecting the shoreline from further erosion). In other words, instead of concealing the measures being taken to replenish the beach, this approach entails acknowledging their existence and utilizing them as opportunities to draw tourists; after all, some tourists perceived of the sand bags as a positive. Obviously, each representational adaptability measure has implications for the tourist population; therefore, the preferred solution to the representational dilemma ought to account for tourists’ perceptions, particularly given that they co-construct tourism landscapes alongside tourism providers.

## CONCLUSION

The purpose of this inquiry was to explore the representational construction of the Playacar landscape by tourists and tourism promoters. The findings indicated that hoteliers adopted essentialist frames of the environmentally degraded coastal landscape. They constructed preferred frames to which they hoped tourists would acquiesce. However, tourists constructed accounts that highlighted the very aspects of beach erosion and mitigation efforts that tourism promoters rendered subliminal. The representational strategies evidenced in the Playacar case study are not unique to the area. In fact, as lesser economically developed nations aim to “attract foreign tourists to bolster faltering economies” they are forced “to package themselves as paradise, a picture postcard antidote to the long, cold winters in the North” (Gosling, 1999, p. 19). Moreover, their existence is contingent upon favorable climate and stable environments and “any change in this environment is bound to have significant consequences” (Craig-Smith et al., 2006, p. 124). Hence, essentialist frames are often the tools of choice at the expense of misrepresentation.

There is almost always a discrepancy between tourism representations and reality but arguably this inconsistency is characterized by a level of flexibility. That is, tourists as active participants, are aware that tourism representations are often exaggerated and often willingly accept such portrayals as long as the general depictions somewhat resonate within the actual environment. But arguably there is a certain threshold that representations should not exceed as doing so might lead tourists to think they have been deceived and might contribute to long term negative economic impacts. Two essentialist strategies were adopted by local tourism promoters. The first strategy entailed

maintaining an outdated image data base of the beach at the expense of misrepresenting reality. This strategy can work insofar as there are remnants of the beach, but beach erosion in Playacar is rampant. The second essentialist strategy aimed to control the biophysical reality (i.e., preventing its change) through engineering interventions. This strategy consisted of adaptation measures undertaken by the hoteliers to restore the beach; however, these short-term measures were incapable of going beyond cosmetic alterations. A longer term engineering strategy would have entailed higher economic costs and a set of governance conditions which are not always in place in lesser economically developed countries. More importantly, beach reconstruction will always present significant limitations in trying to accurately reproduce a reality akin to essential portrayals based on pristine landscapes. In fact, Playacar's hoteliers missed the opportunity to devise new non-essentialist adaptive representational strategies that internalized the occurring changes while concurrently selling new forms of recreation activities (e.g., sun bathing in the sea on a natural looking sand bag).

Essentialist representations not only offer static portrayals but also objectify nature and imply a certain level of power to control nature. Non-essentialist representational approaches firstly, require an understanding of nature as a state of flux, and an appreciation of the fact that natural and built environments need to be designed/represented symbiotically, rather than as a superposition of the latter on the former. Secondly, they entail an understanding of climate change as a condition under which beings will have to make choices about lifestyles and forms of development (Hulme, 2009; O'Brien, 2009). This will require creativity and flexibility to re-invent destinations while acknowledging the negative impacts of biophysical changes. In the case of Playacar, non-essentialist actions may include further emphasizing alternative recreational activities not linked to the beach such as the use of caverns and *cenotes* (surface connections to underground water bodies) or the visiting of Mayan archaeological sites. It may also entail increasing tourists' understanding of: the causes of beach erosion; new activities taking place in the beach environment; and, climate change mitigation measures, such as the installation of solar panels. Additionally, the hotels might focus on educating tourists about efforts undertaken to mitigate further environmental damage to the beach as well as measures considered to minimize carbon footprints. As a corollary, this might result in the redefinition and recontextualization of the touristic experience by embracing the reality of human-nature interrelations.

Given that more destinations will be affected, it is important to engage in further research on this matter. Such endeavors might examine: a) the manner in which tourists experience sites in which structural changes are taking place; b) the re-branding of the entire destination taking into account the scenario of global climate change which may include, for example, rapid or abrupt increases in sea level; and, c) the impact of technological advances on representations of tourism landscape. Such undertakings are important for developing plans that enable the tourism industry to adapt. As a field, tourism is

constantly adapting to societal changes be they technological, demographic, cultural, or economic. Climate change will introduce new challenges but it will also lead to opportunities for the industry and society at large to revisit their relationship with the environment (Perry, 2006). Scholars have only just commenced examinations on the various ways in which the industry can adapt and more has to be done in order to offer an approach that takes into account the interactions between materiality and the symbolic constructions present in the process of creating touristic representations. ■

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