FROM THE ENDLESS SUMMER TO THE SURF SPRING:
TECHNOLOGY AND GOVERNANCE IN DEVELOPING WORLD SURF
TOURISM

by
Leon Mach

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Energy and Environmental Policy

Summer 2014

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ACKNOWLEDGMENTS

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<td>DWST</td>
<td>Developing World Surf Tourism</td>
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<td>SES</td>
<td>Social Ecological System</td>
</tr>
<tr>
<td>TES</td>
<td>Technology, Environment, and Society</td>
</tr>
<tr>
<td>VST</td>
<td>Volunteer Surf Tourism</td>
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<tr>
<td>CPR</td>
<td>Common Pool Resource</td>
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<td>FASST</td>
<td>Framework Assessment for Sustainable Surf Tourism</td>
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<td>ICT</td>
<td>Internet Communication Technologies</td>
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<td>NGO</td>
<td>Non-governmental Organization</td>
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<td>SCCA</td>
<td>United Surfers and Lifeguards Civil Association of Salina Cruz</td>
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<td>LSC</td>
<td>Local Stewardship Council</td>
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<td>PNG</td>
<td>Papua New Guinea</td>
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<td>SAPNG</td>
<td>Surf Association of Papua New Guinea</td>
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<td>CSR</td>
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ABSTRACT

The global surf population continues to grow daily and the places surfers are willing to ride waves is keeping pace. This work focuses on the expansion of surf tourism from high-income OECD countries to remote coastal locations in the developing world and seeks to understand the way this human geographical flow evolves over time. Many researchers in the growing surf tourism field suggest that waves are common pool resources (CPRs), which are inevitably exploited and overused in the developing world (leading to many social and environmental problems), thus exposing more and more fragile coastal areas to a failed development model as the phenomena spreads.

This work explores the potential for resource users to self-organize to reduce or eliminate the negative impacts historically associated with surf tourism in developing countries – or in other words, the potential for user inspired governance, rather than governments to foster sustainable outcomes in areas where surf tourism is the dominant (if not only) source of tourism. This is explored through three central questions: (1) are there cases of surf resource users self-organizing to promote more sustainable outcomes in surf tourism, and if so, under what conditions does this occur, and what models of resource governance are currently operating in the developing world? (2) What roles does technology play in encouraging and supporting user self-organization? (3) Does user self-organization foster sustainable outcomes in developing world surf tourism (DWST)?
To address these general questions a new framework is proposed to contextualize the DWST issue, which combines knowledge from socio-ecological systems (SESs) studies and the growing body of work dedicated to characterizing co-evolving technology, environment, and society (TES) interrelationships. This framework is applied to a case study of volunteer surf tourism (VST) in Lobitos, Peru to take an initial step in building our knowledge about a governance approach that is growing in popularity throughout the developing world. Data was collected utilizing participant observation and informal interview methodologies during two field visits, which occurred in 2010 and 2014. This data was analyzed using the Framework Assessment for Sustainable Surf Tourism (FASST) to assess the role VST plays in shaping the overall surf tourism governance structure in Lobitos and to examine the sustainability of the surf tourism development that results.

The work finds that technological connectivity is integral to the creation and operation of VST (WAVES for Development) in Lobitos and that VST is part of an institutional framework that fosters cross-cultural interaction and spreads the sport of surfing at the local level. This along with other social programs geared towards teaching English and providing business training and microfinance alleviate poverty in Lobitos. The second finding is that WAVES for development (WAVES) does not have the capacity to challenge global economic structures or to limit surf tourism growth in Lobitos and in some cases even works directly against any such effort. This finding highlights the importance of adding in a discussion of scale to comprehend the interrelationship between the global drivers of surf tourism development and the
localized materialization of surf tourism on the ground in remote coastal communities. This lends new insights to the field when considering the importance of movements towards sustainability at both the local and global level. The third finding is that tourists and entrepreneurs from other areas of Peru and other developing countries are significant drivers of tourism growth in Lobitos, which challenges the current discourse in the field which suggests that surfers from industrialized countries are typically responsible for colonizing wave resources in the periphery and the associated socio-environmental problems.

In short, this work offers a new approach to understanding dynamics of ocean waves as CPRs and how technological, environmental, and social factors impact the way surf tourism evolves over time. The findings herein bring attention to the urgency and imperative for future research to pay attention to the governance perspective and autonomous models of resource self-organization aimed at facilitating sustainable surf tourism development.
Chapter 1

DEVELOPING WORLD SURF TOURISM (DWST) AS A UNIQUE SOCIAL ECOLOGICAL SYSTEM

*Human beings were invented by water as a device for transporting itself from one place to another.* (Robbins, 1981).

1.1 Introduction: Everybody Surfs

1.1.1 Problem Statement

Technology, mass produced boards, and surf schools have made it easier for anyone to learn how to surf, and to do so with warm wetsuits, soft boards, encouraging instructors, and fully forecasted knowledge of the conditions (Melekian 2009: 86).

It has never been easier to learn how to surf and as a result, more and more people are taking up the activity. What began as an ‘ancient sport of kings’ practiced exclusively by isolated communities in the Pacific Islands and was then adopted almost solely by young middle class white males in industrialized countries, now has a global and diverse following – soccer moms surf, retirees surf, six-year-olds surf, Muslims surf, Hindus surf, Africans surf, everybody surfs. Best estimates suggest that there are between 20 million surfers (Lazarow & Nelson, 2007) and 35 million surfers worldwide (O’Brien & Eddie, 2013), growing at roughly 12 to 15 percent per year (Buckley, 2002). When you overlay a growing surf population with finite wave resources, it is easy to see why the modern surf era is perhaps best characterized by the statement that there are “[t]oo many rats and not enough cheese” (Newman: 2000).
This work will primarily focus on one socio-spatial response to the growing worldwide surf population – developing world surf tourism (DWST), or surf travel from high income OECD countries to low-income countries for the principle purpose of surfing. Many argue that crowding in urban surf settings in industrialized countries coupled with cheap airfare, the media encouraging travel to exotic destinations, and websites with real-time surf reports and surf cameras from all over the world has driven demand for surf tourism to the ‘developing world’ and also made it more practical (Barbieri & Sotomayor, 2013; Barilotti, 2002; Dolnicar & Fluker, 2003b; George, 2002; Hughes-Dit-Ciles, 2009; Mach, 2013, 2009; Ponting 2008; Preston-Whyte, 2001, 2002). While adequate data to represent the scale of international surf travel do not yet exist, there is evidence that the activity is immensely popular, growing, and supported by many independent surf tourism operators, specialized surf travel agencies, and vertically integrated multinational corporations (Latarola, 2011; Ponting, 2009).

In their study of 136 surfers, Barbieri and Sotomayor (2013) find that 91 percent say that they have traveled to surf before, 54.8 percent say they have traveled to surf more than five times in the last five years, and almost 20 percent indicated they had taken more than twenty surf trips during the same time frame. While this sample is not representative of all surfers, it does give empirical weight to the argument that many surfers travel very often and also suggests that surf tourism has shifted from a long duration and shoe-string-budget activity in the 1960s and 1970s to a quick shot and high dollar packaged commodity at present (Barbieri & Sotomayor, 2013; Ponting, 2009).
The problem associated with a growing volume and frequency of surf travel to low income countries is two-fold. First and most importantly, while some argue surf tourism to remote coastal communities has the potential to infuse capital into places where it is severely needed to alleviate pervasive poverty (Buckley, 2002a), a great deal of research in this growing field has found that poorly planned surf tourism in developing countries has most often led to negative social and environmental impacts with little or no economic benefits reaching host communities (Barilotti, 2002; Buckley, 2002a,,b; Hulet, 2006; O’Brien & Ponting, 2013; Ponting, et al. 2005, Ponting & McDonald, 2013).

Ponting et al. (2005: 152) say that “surf tourism has a history as a colonizing activity” because surfers tend to venture into areas never before visited by other tourists and open up new routes and systems of development propelled by foreign ownership and free market principles. This has led to deleterious environmental (depleted freshwater stocks, untreated effluent entering the ocean, coral reef destruction, etc) and social impacts (prostitution, drugs, exacerbating community inequity, and gentrification), while contributing minimal economic benefits to the host communities.

A secondary, but related issue is that surfers are endangering the very reason they are traveling in the first place. The crowded urbanized surf experience follows surfers to remote coastal communities in the developing world, as ad hoc coastal development responds to increasing tourism demand (Ponting, 2009). If the psycho-social benefits of surfing are greater when practiced with less people around and in unfamiliar regions (Csikszentmihalyi, 1990; Ford & Brown, 2006; Flynn, 1987; Irwin, 1973) and this is what surf tourists seek when they travel, then this is being threatened by more surfers
flocking to the same places in developing countries at the same times of year to follow
global wave patterns (which has become much easier to monitor in our current era of
advanced internet communication technologies (ICTs)).

The theoretical justification for this neo-colonial development model is that waves
are common pool resources (CPRs) and if access to them is not limited, their
sustainability will be threatened (Buckley 2002a,b; Hughes-Dit-Ciles, 2009; Ponting &
Obrien, 2013). Hardin (1968) famously suggested that CPR’s (open access fisheries,
pastureland, surfing waves) are destined to succumb to tragedy because those who benefit
from extracting another fish, putting another cow on the pastureland, or adding another
surfer to their surf tour, experience all the benefits of this addition (or subtraction), but
share the costs with all other users. This is seen as a perverse incentive. It’s perverse in
that rational actors, in surf tourism specifically, will add more users to the surf CPR, to
the point where eventually the resource is overused, which threatens tourist desire to visit
and leads to a host of challenges for local communities to deal with. Entrepreneurs
accelerate surf resource degradation and then move on to the next spot.

In an attempt to address concerns of social and environmental sustainability,
many researchers have suggested various approaches for enclosing the commons through
different public and private ownership schemes, most notably private firm ownership and
surf quota allocations schemes (Buckley, 2002b, Hughes-Dit-Ciles, 2009; Ponting &
O’Brien, 2013; Short & Farmer, 2012). These solutions certainly have potential in
certain contexts, but privatizing wave access in general, especially given the rapid
expansion of surf tourism to remote locations in developing counties, is difficult to
implement, often unpopular among surfers and competing resources users, not a policy priority, and more importantly, is not the only option in the modern surf world.

1.1.2 Study Objectives

This work focuses on understanding the way surf tourism evolves over time with changing technological, environmental, and social (TES) circumstances. This involves proposing a new framework for conceptualizing the problems associated with surf tourism to low-income coastal communities. Rather than accepting that waves are common-pool resources (CPRs) that will be inevitably exploited without the imposition of top-down management strategies, it is argued that wave resources are nested within a complex social-ecological system (SES) that makes other options possible. Changing TES circumstances open up the potential for resource users to organize and implement different governance approaches to encourage sustainable resource use. This effort is part of a growing academic movement to center the discussion of resource management on communities and local institutional frameworks in the face of a growing realization that government resources and market-based approaches are often unable to combat CPR challenges in the developing world (Agarwal, 2003).

The main goal of this dissertation is bring attention to the way surf tourism is evolving with new technological inputs and within this context, discuss the potential for resource users to self-generate globally-focused governance strategies to prevent surf resource exploitation and overuse. The first step in building knowledge on this topic will be to present an exploratory case study of volunteer surf tourism (VST) in Lobitos, Peru
as a localized manifestation of these larger forces. This study will then reflect on the work being done by Waves for Development (WAVES), the non-profit VST organization operating in Lobitos, in relation to the established Framework Assessment for Sustainable Surf Tourism (FASST) criteria for assessing sustainable surf tourism.

1.2 Social-Ecological Systems (SESs) – An Interdisciplinary Framework

SES (Social-Ecological System) is an evolving interdisciplinary framework created to define, contextualize, and diagnose issues associated with human interactions with the biophysical environment (Anderies et al, 2004; Angelstam et al, 2013). This framework has typically been applied to different CPR challenges facing communities around the world and is intended to nest the notion of CPRs within a larger and more complex understanding of SESs. CPRs refer to the products (forest products, irrigation water, fisheries, fodder in pastures, and atmospheric carbon dioxide sinks) of diverse ecological systems that are characterized as open-access. These natural resources have a self-generative capacity and therefore, ways to clearly delineate human ownership are not inherent. The problem arises because while human use is not restricted, human behavior affects the ability of other users to benefit from the resource in question. If one firm takes too many fish from a lake, they benefit from selling or eating those resources, but their actions make it harder and more costly for others to also catch fish. If there are no restrictions, each fisherman has an incentive to take as many fish as they can because if they do not, someone else will (Hardin, 1968). The short term benefits of extracting the fish outweigh the potential benefits of forgoing taking fish because the future viability of
the resource is not certain. This dynamic has been used to justify the rational destruction of many CPRs, from river water for irrigation to timber resources in forests.

Since the publication of Hardin’s (1968) ‘Tragedy of the Commons,’ many economist have argued that the solution to CPR problems is some sort of ownership scheme (public or private). Property rights are seen as sets of rules that define access, use, exclusion, management, monitoring, sanctioning and arbitration behavior of users with respect to a specific resource (Schlager & Ostrom, 1992). This has evolved into a widely accepted tenet of environmental management and conservation: that property rights, in one form or another, are required to provide the right incentives for participants to foster resource sustainability (Hanna & Munasinghe, 1995). It is “presumed that when someone does not own a resource, they have no long-term interests to sustain the resource over time and thus cannot be expected to act beneficially towards that resource” (Ostrom & Cox, 2010: 452). Private property arrangements, public ownership, or state management are argued to be the most effective ways to change the incentive structure and preserve the integrity of CPRs (Agrawal, 2003).

The SES framework was developed as a reaction to this argument. Much of the scholarship devoted to SESs argues that proscribing clear ownership rights to CPRs is not the only path forward (Anderies et al., 2013; Angelstam et al., 2012; Ostrom, 2007, 2009, 2010; Ostrom and Cox, 2010). SES scholars suggest that the privatization panacea is not backed by empirical evidence and that such a solution does not account for the complexity involved with the way human users interact with the biophysical environment and one another. SES is a framework for contextualizing new institutional trends based
on the “recognition that the fiscal capacity of the state to undertake coercive conservation is limited and that communities can often manage their resources better than either private actors negotiating through market-based exchanges or state actors regulating through command and control policies” (Agrawal, 2003: 246). The SES framework was established to shift the locus of discussion to communities and to include an analysis of cooperation in the social system, the dynamics of ecological processes, and rules governing how the two can interact in a way that was underappreciated in past disciplinary studies of CPR problems (Agarwal, 2001; Anderies et al. 2004; Blanco, 2011).

The purpose of the SES framework is to combine human activity and biophysical processes into a holistic understanding that they are both a part of the same interlinked system and that simple one-size-fits-all solutions have not, and will not adequately address these complex challenges (Ostrom, 2007, 2009, 2010; Ostrom & Cox, 2010). Many SES scholars argue that the problems associated with these systems need to be addressed in a way that moves beyond privatization and begins to employ theories, methods, and prescriptions for sustainable governance strategies that incorporate knowledge from a variety of disciplines and stakeholders in the process of defining the problem and developing viable and long lasting solutions (Angelstam et al., 2013; Hirsch Hadron et al, 2008). The SES framework is essentially a way to contextualize the ability of small local groups to design institutional arrangements to help manage resources sustainably (Agrawal, 2003).
In her attempt to isolate the conditions that typically have led to self-organization in the past, Ostrom (2009) first characterizes SESs in a multi-tier general framework, whereby the study becomes analogous to the study of an organism. Ostrom (2009) suggest there are four core subsystems (found in Figure 1.1) that make up any SES, which are like the core subsystems in an organism. These are the resource system (e.g. a coastal fishery), resource units (lobsters), users (recreational and commercial fishers), and governance systems (organizations and rules that govern fishing on that coast). She argues that these core subsystems are “relatively separable but interact to produce outcomes at the SES level, which in turn feedback to affect these subsystems and their components, as well as other larger or smaller SESs” (Ostrom, 2009: 419). Past research looking at CPRs and resource users has found inherent unsustainability in their interaction without top-down management. For Ostrom (2009), the multi-tier framework is crucial to attempting to understand why some SESs are sustainable and others fail.

Why in some places around the world there are healthy and profitable lobster fisheries and in other places lobsters have been fished to near extinction. While there are certainly examples abound of CPRs being exploited and collapsing, there have also been cases documented in the field where harvesters (and other resource users) and local leaders have self-organized to create and implement effective rules and norms to manage resources (Ostrom, 2007; 2009; Ostrom & Cox 2010).
Ostrom (2009) suggest that there are 10 second-tier variables (found in Table 1.1) within the core subsystems (from Figure 1.1) most likely to be associated with users self-organizing to develop governance strategies for the sustainable use of CPR units. The presence of certain second-tier variables related to multiple actors working together to achieve common goals are not found to be contingent upon clear ownership and property
rights (Ostrom & Cox, 2010). Rather they are based on user recognition and understanding of a problem and mutual desire for sustainable use in the future.

Most studies of SES and self-organization in the context of extractive CPRs are focused on ‘institutions’ and how they directly affect the structure of a situation in which actions are selected (Ostrom, 1986). Ostrom (1986: 5) defines institutions “as potentially linguistic entities….that refer to prescriptions commonly known and used by a set of participants to order repetitive, interdependent relationships” where “prescriptions refer to which actions……are required, prohibited, or permitted.” Institutions are not merely entities, like a government body or an NGO, nor are they the explicit rules these entities may try to implement in a given setting, such as a property right scheme or a law. The broader definition of institution can thus be seen as formal and informal circumstances which facilitate “commonly understood codes of behavior that potentially reduce uncertainty, mediate self-interest and facilitate collective action” (Ostrom & Cox, 2010). Institutions situate the behavior of different participants in varying situations and a set of institutions can be autonomously created by diverse resources users to protect CPRs from overuse, especially when the resource system in question is of small or medium size (Ostrom, 2009, Ostrom & Cox, 2010). It is for this reason that the terms institutions and governance are used interchangeably in this work. CPR governance is a multifaceted institutional framework that situates the behavior of users with respect to resources. SES sustainability is wrapped up with the outcomes that result from the way that governance mechanisms (institutional arrangements) broker the interactions among users, and between users and a resource unit (or a resource system).
One goal of scholars in this field is to assess the outcomes that result from these interactions in relation to certain specified standards of sustainability. Ostrom and Cox (2010: 451) say that finding ways to sustainably govern and manage SESs has “become ever more difficult as they have become increasingly interlinked and as the size of human populations and the level of economic development have both increased.” Domptail et al. (2013) add, however, that the stakes are high because resource degradation and poverty are symptoms of the difficulties in the management of SESs and threaten their existence in the long term. Before directly applying the SES framework to contextualize the creation of autonomous governance strategies in developing world surf tourism (DWST), it is imperative to first discuss the application of CPR theory, and subsequently the SES framework (to broaden the discussion of CPR resources and management), to problems related to nature-based tourism (ecotourism).

1.3 SESs and Nature-Based Tourism

Tourism users can voluntarily invest in costly abatement activities to reduce their aggregate impact without government coercion (Blanco, 2011:46).

CPRs have been defined as dilemmas in tourism despite tourism often being considered a non-extractive industry (Briassoulis, 2002). This is because some aspects of the ‘tourism product’ are private goods (hotels, bars, restaurants, etc.), but more importantly in terms of destination appeal, the most significant portion of the tourism product is made up of natural assets (public goods), which can be considered tourism CPRs (Briassoulis, 2002; Healy, 1994). This is especially true for nature-based tourism
or ecotourism, which is said to be growing six times faster than the tourism industry as a whole (UNEP, 2011). The natural assets that tourism depends upon include forest land, wildlife areas, lakes, river basins, waterfalls, estuaries, sections of shoreline, diving areas, coral reefs, and caves (Healy, 1994; Jafari, 1982) and ocean waves (Buckley, 2002a, 2002b, Hughes-Dit-Ciles, 2009, Ponting & O’Brien, 2013). Nature tourism is thus dependent upon a basket of CPRs (clean air, clear water, healthy trees, beaches free of litter, vibrant wildlife, etc...) that are important to tourists but are not owned by any one individual or entity. It is hard to get back to nature when you are bumping up against other tourists, or viewing evidence of past visitation, such as solid waste pollution littering a once ‘pristine’ beach or nature trail. In short, even though tourism is not directly dependent upon extractive practices, the industry still must deal with CPR issues that exist at the intersection of human/ecosystem interactions. All of the natural assets needed for a viable ecotourism destination are subject to the same problems associated with overuse and lack of incentives for investment in promoting sustainable uses as previously mentioned (Healy, 1994). As evidence, there are many examples of tourism destination’s overusing their CPRs and losing the appeal that brought tourists there in the first place (Butler, 1980; Honey, 1999; Knowles & Curtis, 1999).
<table>
<thead>
<tr>
<th>Stage</th>
<th>Description of stage</th>
</tr>
</thead>
</table>
| Exploration | - small tourist numbers, making individual travel arrangements and following irregular visitation patterns  
|           | - no specific tourist facilities, use of local facilities, thus high contact with local residents |
| Involvement | - increase in number of visitors, assume some regularly  
|           | - some locals may begin to provide facilities for visitors  
|           | - still high levels of contact between visitors and locals  
|           | - some advertising to specifically attract tourists  
|           | - basic market area for visitors can be defined. |
| Development | - well-defined tourist market area  
|           | - heavy advertising  
|           | - decline in local involvement and control of development  
|           | - some locally provided facilities will disappear, replaced with larger facilities provided by external organisations |
| Consolidation | - rate of increase in numbers of visitors will decline, although total numbers will still increase  
|           | - total visitor numbers exceed number of permanent residents  
|           | - major part of the area's economy will be based in tourism  
|           | - large emphasis on marketing and advertising |
| Stagnation | - peak numbers of visitors will have been reached  
|           | - capacity levels will have been reached or exceeded, with environmental, social, and economic problems  
|           | - well-established image but it will no longer be fashionable  
|           | - heavy reliance on repeat visitation. |
| Decline | - the area will not be able to compete with newer attractions and so will face a declining market  
|           | - no longer appeal to vacationers (used more for weekend or day trips). |
| Rejuvenation | - may occur when there is a complete change in the attractions on which tourism in the area is based. |

Figure 1.2   Tourism Area Life Cycle Model (Source: Butler, 1980)
Butler’s (1980) Tourism Area Life Cycle model (TALC) shown in Figure 1.2 is often referred to in sustainable tourism studies. This model suggests that because tourism is dependent upon CPRs, if unmanaged, these resources will be exploited, leading to overdevelopment and the eventual decline of the tourism industry dependent upon these natural assets. The narrative describing this model begins when an area is first discovered by adventurous tourists who show up before tourist services are established so they use the existing infrastructure to get around, sleep, and eat. Seeing an income-generating opportunity, other people become involved in offering small-scale services. As this process occurs, a budding tourism infrastructure begins to take shape and businesses begin to advertise for more guests to boost profitability. Next there will be a development phase, where foreign entrepreneurs take control of the industry, erect large-scale infrastructure, and lure guests to the point where CPRs start to become stressed.

The area then enters a consolidation phase where Butler (1980) suggests that tourism visitation numbers continue to increase, but at a decreasing rate. In this phase, the location becomes a part of the global tourism industry with a clear business district and with tourists visiting out numbering local inhabitants. Finally, visitation stagnates and then declines as the area’s CPRs are overexploited, the destination loses its appeal and tourists begin to favor other locations. High volumes of low paying tourists remain, as well the many social and ecological problems associated with resource exploitation and loss of tourism market share. This trajectory is seen as inevitable without direct policy interventions geared towards enclosing the common resources that make up the
tourism industry. This involves creating such things as national parks, privately-owned beaches and nature reserves, which all require limiting visitation to the natural areas.¹

A great deal of work on ecotourism and adventure tourism management is built from theoretical foundation offered in Bulte’s (1980) model. There is also, however, a growing academic movement to place nature-based tourism in a SES framework which looks beyond inevitable collapse and direct policy interventions in order to analyze the potential for voluntary initiatives (self-organization) to prevent tourism CPRs from overuse (Blanco, 2011). Most of this work focuses on voluntary environmental initiatives taken up by private tourism providers including certified (such as eco-labels) and uncertified practices such as codes for good environmental conduct (UNEP 1998; UNWTO 2002).

Certified eco-labels, such as the Global Sustainable Tourism Council (GSTC) recognized Certification of Sustainable Tourism (CST) for hotels in Costa Rica outline a set of criteria and measures that must be implemented by tourism providers in order to officially receive the CST certification. Based on the level of compliance with certain criteria (i.e. local employment, local food and building material sourcing, and reduced water consumption), the certified establishments receive between one and five leaves to signify the extent to which each outlined parameter is met. These measures are taken up voluntarily, but represent an attempt for businesses to be recognized as sustainable and

¹ The other alternative Butler (1980) proposes is a rejuvenation of tourism market by catering to different audiences. For example, if the waves in a surf tourism destination become overcrowded and the area loses its appeal as an unspoiled surf location, the area may be able to reinvent itself to more general ecotourist interests. This could lead to a new wave of tourists to enter the area in question.
consequently address historic issues associated tourism growth and expansion. Blanco (2011) directly tests the ten second-tier variables (Table 1.1) found in Ostrom’s (2009) work on SESs most likely to foster a capacity for self-organization to see if they are useful in explaining the presence of successful voluntary environmental initiatives in nature based tourism.

In her review of more than 100 voluntary initiatives, Blanco (2011) argues that the determinants of voluntary action in tourism are partially consistent with Ostrom’s (2009) findings. Specifically, Blanco (2011) suggests that the presence of leadership, established behavioral norms among members of the voluntary initiatives, shared mental modes, salience of the resource for users, and substantial productivity of the resource system are five second-tier variables that are significant when assessing the likelihood of self-organization for sustainable use of tourism resources (see Table 1.1). This finding suggests that user variables are far more significant in voluntary environmental tourism initiatives than are the ecological processes that create the conditions for tourism CPRs to exist. Variables regarding the resource system (size, predictability, and the mobility of its resources) do not appear significant in Blanco’s analysis. The number of users nor, the process of users crafting collective choice rules to govern CPRs seem to influence the effectiveness of voluntary environmental initiatives in tourism. User sub-variables are thus found to be the most significant at explaining the presence of autonomous governance initiatives being implemented by resource users in the ecotourism context.

Blanco (2011: 41) concludes that “the emergence of voluntary agreements in the tourism industry is consistent with the broader findings that users of CPR frequently
develop their own institutions, operating without formal government jurisdictions.” This means that tourism stakeholders can, and do, self-organize to change the institutional context in which they are embedded and that external imposition is not necessary for this to occur (Blanco, 2011). The United Nations World Tourism Organization (UNWTO, 2002) and the United Nations Environment Program (UNEP, 1998) both conclude that voluntary initiatives in tourism have positive impacts on awareness raising, acceptance of environmental issues, learning, cooperation, and product improvement and that these attributes help to maintain institutional relationships that preserve tourism CPRs. The work of UN agencies and Blanco’s (2011) study examine voluntary initiatives taken up by private tourism service providers and suggest that these efforts change the overall institutional framework in different contexts. This research, however, defines sustainability only in terms of the presence and longevity of initiatives themselves and does not qualitatively or quantitatively assess the sustainability of the overall outcomes that result from these initiatives.

1.4: Developing World Surf Tourism (DWST) – Carving Out Parameters of Study

1.4.1 DWST Definition

Martin and Assenov (2012) suggest that surf tourism research can be practically and theoretically divided between two different flows, which can best be understood in terms of human geography. The first being the flow of surfers from industrialized countries to coastal communities in the developing world and the second being the flow
of surfers within and between industrialized countries. The first stream is the focus of this work. It is principally concerned with the positive and negative impacts associated with surf tourism activities in the developing world. This research will focus on building a framework for assessing user self-organization and the sustainability of the governance systems these users collectively create to prevent resource exploitation and overuse in what I will call developing world surf tourism (DWST). DWST will be defined herein as:

Travel from high income OECD countries to developing world surf locations, for a time period between 3 days and twelve months, for the primary purpose of surfing.

This particular method of delineating study boundaries suggested here is meant to encourage the clarification of more narrowly defined study parameters. While Ponting (2008) and others have chosen to focus their studies on what I am calling DWST, they typically refer to these areas as “less-developed countries” but do not give a specific definition for what that really means. This research will use World Bank definitions to clearly define developing and industrialized countries within the study. The World Bank defines developing countries as any country with a gross national income (GNI) per capita below 12,475 U.S Dollars (WB, 2013).

Buckley’s (2006) four distinct economic segments can be seen as relevant categories for analysis that comprise the DWST market. They include: (1) specialist surf tour companies that run scheduled tours to prime surfing locations; (2) experienced

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2 The second stream looks at age-old surfing locations in industrialized countries that experience high use (Martin and Assenov, 2012). There is also evidence of a third flow comprising travel within and between developing countries, but this has not yet been studied.

3 In this work, low income countries and developing world countries will be used interchangeably.
surfers who travel using both local and mainstream transport and accommodation; (3) low-budget surf safaris that take organized groups of surfers to a series of sites; and (4) surf schools and surf camps offering lessons as part of a tourists’ travel experience.

A fifth segment which is growing can be added. It comprises the volunteer surf tourism market, where both experienced surfers and people who desire to learn how to surf partake in an organized travel experience to the developing world in conjunction with volunteering efforts to aid or alleviate “the material poverty of some groups in society, the restoration of certain environments, or research into aspects of society or environment while furthering knowledge and awareness of these” (Wearing & Neal, 2001: 241). To understand the governance of wave CPRs it is important to recognize each of these market segments and to what degree they comprise the make-up of any specific location being studied.

When scholars discuss surf tourism now, they typically suggest that the total world value is likely to be anywhere between one quarter of a billion U.S dollars (Ponting, 2008) to tens of billions of dollars (Mach, 2013), to $130 billion dollars (O’Brien & Eddie, 2013) annually. There is a huge error band here, but more importantly, this data tells us very little about what kind of tourism we are talking about, nor does it encapsulate the hundreds, if not thousands of small coastal communities in the world where no data has been collected and no studies have been conducted. There is a movement, dubbed “surfonomics,” which has been using travel costs and other quantitative economic data to try to represent the economic value of individual surf-breaks. This has become a tool for valuing surf-breaks when conflicts arise over costal
infrastructural projects that could threaten wave resources to be used in cost-benefit analyses (Thomas, 2013). Much of this data, as indicated in Table 1.2, has been limited to high income OECD countries and has yet to be undertaken in the developing world in any substantial way. In clearly defining DWST, a major goal is to begin to separate forms of surf travel to develop better quantitative figures and build better theoretical models for contextualizing these different fields of study.

Table 1.2: Surfonomics Surf-Break Valuations (adapted from Thomas, 2013)

<table>
<thead>
<tr>
<th>Surf Break</th>
<th>Country</th>
<th>Value (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Stradbroke</td>
<td>Australia</td>
<td>20.7</td>
</tr>
<tr>
<td>Mundaka</td>
<td>Spain</td>
<td>4.5</td>
</tr>
<tr>
<td>Trestles</td>
<td>USA</td>
<td>14.5</td>
</tr>
<tr>
<td>Mavericks</td>
<td>USA</td>
<td>23.9</td>
</tr>
<tr>
<td>Pleasure Point</td>
<td>USA</td>
<td>8.4</td>
</tr>
</tbody>
</table>

1.4.2 Illustrating DWST Flows

Martin and Assenov (2012), referring to wannasurf.com, suggest that surf tourism occurs in at least 162 countries, but what does this figure really mean? Wannasurf.com is a community website where all data, photos, and videos are uploaded by registered members of the online community – currently there are more than 57,000 registered members (Wannasurf, 2013). When 162 counties is quoted as hosting surf tourism in some capacity, that means that at least one surf location in that country has been uploaded by a registered internet user.
Figure 1.3: DWST Flow Illustration

Figure 1.3 (also see appendix A for the source of this data and more specific figures) represents the same wanasurf.com data used in the Martin and Assenov (2012) study and classifies this data to represent flows from high-income OECD countries to

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4 Data Taken from Wannasurf.com – Impact measure based on amount comments on surf-break pages and author’s observations from nearly a decade of surf travel.

*Some Impact

**High Impact

No asterisk indicates little or no known impact.
locations in the developing world (using WB definitions to categorize). Figure 1.3 suggests the 50 developing world countries that deserve special attention (and uses asterisks to represent their relative popularity). Wannasurf.com data is often used in surf tourism literature (Martin and Assenov, 2012; Ponting & O’Brien, 2013) to suggest the scope of the overall surf tourism industry and the figures presented here demonstrate more realistically what these figures represent when discussing DWST specifically.⁵

Figure 1.3 represents the type of flows associated with surf tourism from High-Income OECD countries to developing countries. The intention is to isolate DWST from flows associated with surfers traveling within and between industrialized countries and within and between developing countries. Moving left to right, Figure 1.3 starts with high income OECD countries on the left, which have surf-breaks uploaded on wannasurf.com. This implies that these countries are most responsible for sending surf tourists to the developing world (asterisks indicating the degree of impact).

The second group of countries, in the middle, are the developing world countries with many listed surf-breaks. This means that they are most likely to be currently experiencing resource stress and should be considered research priorities.⁶ Many surf cities have already formed in these countries and more are in the making. The last group, on the right, are countries with less than ten surf-breaks uploaded. While some of these places are surely underrepresented, like Papua New Guinea, many of the countries in this group are going to experience high levels of surf tourism growth in the coming years and

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⁵ This data inflates the significance of places surfers often travel to and are willing to talk about on social media. Places in the exploratory phase experiencing the early stages of surf tourism impact are underrepresented.

⁶ Note – Peru is found in this category.
could benefit greatly from efforts to organize communities to put their wave resources in sustainable institutional frameworks.

In a study of surf tourism impacts in the developing world, it is useful to use uploaded surf breaks as a proxy for popularity and resource stress. Ostrom (2009) argues that resource productivity has a curvilinear effect on self-organization. This means that resources users are not likely to organize to manage a resource that is already degraded or seemingly abundant – the costs of managing resources do not appear to outweigh the benefits of management at either end of this spectrum. Governance mechanisms to sustain any resource typically emerge somewhere between these two poles, when some stress is witnessed, but there is perceived potential to stave off over-exhaustion (Wade, 1994).

This data is consistent with the findings in this work on surf tourism and self-organization because the majority of known model of user self-organization highlighted in this study are found in countries located in the middle group. Furthermore, as shown in Appendix A, DWST locations with more than 60 uploaded surf spots (South Africa, Indonesia, Mexico, Ecuador, Morocco, Peru, Costa Rica, etc.) seem to reflect what the current research in this field suggests are places where surf resources are becoming extremely crowded and are in need of management of resource decline and the associated social and ecological impacts. Uploaded surf spots can thus be seen as an indicator of resource stress, suggest prioritization of research, and perhaps, help move towards a better understanding of the likelihood of voluntary measures to govern surf resources to
emerge. The more surf spots uploaded, the more well known a country is in terms of its surf resources and visitation.

It is important to mention here, as well, that even though this method implies that a country may be experiencing resource stress based on the number of uploaded surf spots on this one website, this does not do justice to the fact that different regions within each country experience different surf tourism volumes at different times of year, which is dictated by wave quality, type of wave, near shore weather conditions, ocean swell formation, access to waves (infrastructure), and information about surf breaks (how to get there, where to stay, what conditions produce the best waves, and what the hazards are), among other things.

1.5: Why consider DWST a SES?

Commons are not the resources themselves but the set of relationships that are forged among individuals and a resource and individuals and each other (Helfrich & Hass, 2009).

Martin and Assenov (2012) published a meta-analysis of surf tourism research. They find that surf-related tourist activities have expanded well beyond the scope of research and academic knowledge. One reason for this is that sites in only eleven developing world countries have been selected for field research in peer-reviewed journals, commissioned reports, or in grey literature (specifically, Master’s Theses and Doctoral Dissertations) and the vast majority of these studies have taken place in Indonesia (See Table 1.3). Martin and Assenov (2012) also indicate through their meta-
analysis that most researchers in the surf tourism field suggest that the best approach to dealing with issues related to the surf tourism commons are direct policy approaches to manage and sustain surf resources based on recreational carrying capacity.

Table 1.3 Surf Tourism Research Sites in Developing Countries (adapted from Martin & Assenov, 2012)

<table>
<thead>
<tr>
<th>Country</th>
<th># of Research Sites</th>
<th>Country</th>
<th># of Research Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>26</td>
<td>Mexico</td>
<td>2</td>
</tr>
<tr>
<td>South Africa</td>
<td>5</td>
<td>Samoa</td>
<td>1</td>
</tr>
<tr>
<td>Thailand</td>
<td>5</td>
<td>Morocco</td>
<td>1</td>
</tr>
<tr>
<td>Fiji</td>
<td>4</td>
<td>El Salvador</td>
<td>1</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>3</td>
<td>Maldives</td>
<td>1</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*When one study has two different research sites, both sites are counted here.
*When two different studies conduct field work at the same location it is counted twice.

Ostrom and other commons theorists have found that private property arrangements and public ownership (or state management) are not the only nor the most effective mechanisms to govern CPRs. Instead, they have identified community and common ownership/management as frequently occurring and viable alternatives to sustainable CPR management (Agrawal, 2003). This shifts the locus of study in CPR management away from the state and markets and towards community and broad institutional parameters that situate individual action. Research work in this tradition has yet to be applied to developing world surf tourism studies and this has led to assumptions about CPRs that make privatization and top-down government strategies appear to be the only options to prevent resource collapse.
DWST can and should be situated within a SES framework to build a better understanding of what factors condition the interactions between users and resource units, as previous studies have done for extractive industries and nature-based tourism in general. DWST is unique, however, because of the centrality of riding waves to the DWST experience and also the way in which technology is used to predict wave resource quality. You can take a surf tourist to the most beautiful beach imaginable, a beach with few other tourists, no pollution, tropical temperatures, abundant wildlife, and crystal clear water, but if there are no quality surfing waves, they will not be satisfied. DWST is so heavily reliant on this one CPR and the socio-cultural factors surrounding surfer satisfaction generated from interacting with these resources is so nuanced that dedicated study is essential to determining what is sustainable in DWST locations. DWST is also unique because this activity is planned with very little lead time when compared to other tourism practices and is highly dependent on specialized and detailed wave forecasting information. While an eco-tourist typically decides to take a two week vacation to Costa Rica and sets the dates of travel months before they depart, a surf tourist typically looks at surf reports online and decides a few days before departing where they are going to travel and for how long they are going to stay based on predicted wave height, swell period, and near-shore wind data (Reynolds & Hritz 2012). Taking a close look at surf tourism can help shed light on the role technology plays in surf resource use (interaction between humans and resource units) and surf resource governance.

Surf tourism can benefit through adopting a common language and theoretical grounding in an SES framework, as can wider knowledge about SES governance.
progress with the addition of surf tourism into this complex body of interdisciplinary work. Even though ocean waves are resource units that cannot collapse with over-use in the traditional sense the common pool nature of surf tourism resources are comparable to other extractive and general tourism CPRs for two main reasons.

The first and most obvious reason waves can be considered CPRs is because the more people trying to surf them deteriorates the experience for other surfers (Alessi, 2009; Buckley, 2002a; Ford & Brown 2006). Perceived crowding is the a subjective negative evaluation of human density in a recreational space (Manning, 1985) and surfers have been found to be especially sensitive to perceptions of crowding and choice of surf vacation destination is heavily reliant on avoiding areas thought to be crowded with other surfers (Barbieri & Sotomayor, 2013; Buckley, 2002a; Dolnicar & Fluker, 2003; Reynolds & Hritz, 2012). The second reason is that DWST can be considered a CPR problem because the support networks (i.e. clean drinking water, clean ocean water, healthy coral reefs, sewage treatment, solid waste disposal, healthy forests, etc.) that facilitate people traveling to and enjoying surfing waves can, and have collapsed with over-use (Barilotti, 2002; Buckley, 2002a; Hughes Dit Ciles, 2009; Larson, 2002; Ponting et al., 2005; Ponting, 2009; Tantamjarik; 2004). Just like with other SESs, DWST can lead to social and environmental ruin, but also if governed properly can lead to new opportunities for development and sustainable/long-lived benefits for all parties involved.

7 Meaning the objective qualities of the wave are the same whether there are zero, two, or two-hundred surfers trying to ride it at the same time. Similarly, because surf resource carrying capacity is psychosocial, if you remove surfers from an exploited (overused) resource the quality is immediately restored.
In synthesizing work on many SESs, Ostrom (2007) isolates variables that have been found to affect the patterns of interaction and outcomes observed in empirical SES studies and she orders them in a nested multitier framework. Ostrom’s (2007, 2009) SES framework. Figure 1.4 displays an application of Ostrom’s (2007, 2009) SES framework to DWST as a global commons issue specifically. There are eight broad variables (1) social, economic and political setting (S), (2) resource system, (3) governance system, (4) resource units, (5) users, (6) related ecosystems (ECO), (7) interactions, and (8) outcomes.

Figure 1.4: DWST SES Model – (Adapted from Ostrom 2007, 2009)
From this conceptual map (Figure 1.4) it is possible to zoom in on different variable combinations to examine their taxonomy and also formulate explanations for how they interact, the outcomes of their interaction, and how these outcomes feed back into the dynamics of the SES being discussed. Table 1.4, which follows, shows these sub-variables under the higher tier (core) variables already discussed, with a few minor changes from Ostrom’s framework, in order to make the model more applicable to surf tourism. Many of the proposed changes come from cross checking Ostrom’s model with indicators built into Martin and Assenov’s (2013) Surf Resource Sustainability Index, as well as, from my own experience studying surf tourism. The majority of the changes come under the resource unit core variable in order to include important characteristics unique to wave resources such as the quality, consistency, accessibility, recreational carrying capacity, and uniqueness.

If this were not complicated enough, each of these second level variables can be further broken down. For example, when we talk about the socioeconomic attributes of users, what users are we talking about? If we are talking about the traveling surfers, this can be broken down into Dolicar and Fluker’s (2003a) five surfer market segments; the price-conscious safety seekers, the luxury surfers, the price conscious adventurers, the ambivalent and the radical adventurers. To just say that surf tourists earn a mean income of $75,000 USD (Thomas, 2013), does not reveal very much about who surfs where, how much they spend, where the money goes or how long they stay. This is offered as a brief

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8 These segments emerged from their demographic and psychographic study of 430 surfers, responding to questions such as the importance of certain surf destination attributes such as lack of crowds, level of personal safety, and the quality of accommodation, among others (Dolicar and Fluker; 2003a).
breakdown of just one second-level variable to hopefully express that this model is used for analytical simplification and visualization of the problem and not to reduce the level of complexity involved when discussing DWST as an SES, but more so to appreciate this complexity and nuance when thinking about and visualizing the problem and potential solutions.
Table 1.4  DWST Second Tier Variables

<table>
<thead>
<tr>
<th><strong>Social, Economic and Political Setting (S)</strong></th>
<th><strong>Resource System</strong></th>
<th><strong>Governance System</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity of system boundaries</td>
<td>Non-Governmental Organizations</td>
<td></td>
</tr>
<tr>
<td>Size of the resource system</td>
<td>Network Structure</td>
<td></td>
</tr>
<tr>
<td>Human constructed facilities</td>
<td>Property Rights system</td>
<td></td>
</tr>
<tr>
<td>(connectivity between resource units)</td>
<td>Operational Rules</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Properties</td>
<td>Collective Choice Rules*</td>
<td></td>
</tr>
<tr>
<td>Predictability of system dynamics</td>
<td>Monitoring and Sanctioning process</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Lifesaving organizations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Resource Units</strong></th>
<th><strong>Users</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource unit quality</td>
<td>Number of Users</td>
</tr>
<tr>
<td>Resource unit consistency (temporal)</td>
<td>Socioeconomic attributes of Users</td>
</tr>
<tr>
<td>Connectivity with other resource units</td>
<td>History of Use</td>
</tr>
<tr>
<td>Recreational Carrying Capacity*</td>
<td>Location</td>
</tr>
<tr>
<td>Economic Value</td>
<td>Leadership/Entrepreneurship*</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Norms/Social Capital*</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>Knowledge of SES/mental modes*</td>
</tr>
<tr>
<td>Nearby Degraded Resource Unit</td>
<td>Importance of the resource*</td>
</tr>
<tr>
<td></td>
<td>Technology Used*</td>
</tr>
<tr>
<td></td>
<td>Surf events (Contests)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Interactions</strong></th>
<th><strong>Outcomes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Information sharing among users*</td>
<td>Social performance measures</td>
</tr>
<tr>
<td>Deliberation processes</td>
<td>(i.e. – Efficiency, equity, accountability)</td>
</tr>
<tr>
<td>Conflicts among users (i.e. Local surfers vs. tourists; fishery space vs. surf space; developers vs. local population)</td>
<td>Ecological performance measures</td>
</tr>
<tr>
<td>Investment Activities</td>
<td>(i.e. – Water quality, freshwater access)</td>
</tr>
<tr>
<td>Lobbying activities</td>
<td>Externalities to other SESs</td>
</tr>
<tr>
<td>Use levels of different users</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Related Ecosystems (ECO)</strong></th>
<th><strong>Social performance measures</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Patterns. Pollution Patterns. Flows into and out of focal SES.</td>
<td>(i.e. – Efficiency, equity, accountability)</td>
</tr>
<tr>
<td>*most likely to influence self-organization</td>
<td></td>
</tr>
</tbody>
</table>

*most likely to influence self-organization
1.6 DWST as a Global Socio-environmental Problem

Levin (2006) emphasizes that patterns at the macro-level develop from interactions all the way down to individual agents, which in turn, are shaped by macro-level factors. DWST involves a flow of humans, resources, and capital from OECD countries to places in the developing world. Figure 1.5 is another way of representing the directional flow of surfers from industrialized countries to developing countries. Each country is sized by the number of surf breaks uploaded to wannasurf.com and colored by its respective World Bank classification. This figure can help us to visualize the

Figure 1.5: Surf World Cartogram: Countries sized by # of Surf-Breaks
parameters of the study about humans and capital flowing from the red (OECD) nations to the green (developing nations). Macro-scale DWST is itself an SES, in that flows from OECD countries to DWST destinations is an umbrella SES, which encapsulates aggregate micro-level decisions made by individuals to visit different locations in the developing world in order to surf. This is important because socio-economic forces that impact the entire global surf culture encourage DWST and this leads to very small isolated communities being impacted by this flow of humans and capital. As surf tourism sequentially fans out to new locations around the world, these once localized challenges become a global resource problem and the surf tourism frontier begins to close. While many DWST case studies exposing resource stress have appeared to exist in somewhat isolation from other areas in the current literature, this section presents an argument that the entire system is becoming stressed as areas to expand the surf tourism industry are becoming scarcer. The roving bandit framework (Berkes et al, 2006; Olson, 2000) can help to contextualize the expansion of the DWST resource problem to a global scale.

1.6.1 Roving Banditry

Quality surfing waves are finite and temporal – they are dependent on certain geological features and seasonal, as well as, daily weather and swell patterns. In Shaw and Black’s (2002) study on the California coast, one of the world’s higher quality resource areas, they find that only a tiny fraction of the coast actually produces quality surfing waves, and this does not even take into considerations that only certain areas create waves certain times of the year. The same can be true for DWST locations in that
where and when the waves will be breaking is a factor of geology and climatology. While I will later argue that surfing waves in the developing world became desirable resource units because of a confluence of technological, environmental, and societal (TES) factors at the societal level, it must be noted that the resource system is also reliant upon a confluence of seasonal weather, wave, and wind patterns, as well as, bathometric conditions.

Because the desire to experience uncrowded tropical surf is so great, as one resource unit becomes overused, another resource unit is discovered and typically overused quite quickly. This process akin to what has been called the “roving bandits problem,” (Berkes et al, 2006; Olson, 2000) to the point where there is little room for more surf-break discoveries and the entire system is in stress leading to a global challenge. Berkes et al (2006: 1557) characterize the problem in these terms: “[r]oving banditry is different from most commons dilemmas in that a new dynamic has arisen in the globalized world: new markets can develop so rapidly that the speed of resource exploitation often overwhelms the ability of local institutions to respond.” While the roving bandits problem was initially proposed as a theoretical construct for explaining fishing fleets that target valuable marine resources, deplete the stocks, then move on to do the same in other regions, this can quite seamlessly be adopted to surf-surf break resource entrepreneurs and users.

Applying the roving bandit concept to surf tourism development in Indonesia serves as a microcosm for what is now happening on a global scale. In Indonesia, surf tourism started in Bali when military personal stationed there from Australia and the U.S.
started surfing the area in the 1960s. Prior to this the ocean was not considered a place for leisure activity, in fact there was a deep seated culturally constructed aversion for the ocean that permeated most of Indonesia and Bali especially (Moore, 2010). Shortly after military personal began surfing however, when word got out in the surf media about the wave quality, traveling surfers began to flock to the area, with Kuta and Uluwatu receiving the most attention. Once this area became represented in the surf media with depictions of surfers camping and surfing ‘perfect’ waves all to themselves, the door was opened for entrepreneurial ventures to help surf tourists fulfil the fantasy they witnessed in these films and magazines. Hotels of varying quality began to spring up around the surf breaks in Bali and many locals began to take up the sport, moving beyond centuries-old taboos that discouraged activities in the ocean other than near shore fisheries (Moore, 2010; Leimbach, 1976). Once marquee surf breaks in Bali became well established and started to receive larger volumes of surf tourists, surfers, entrepreneurs, and the surf media sought out new nearby areas. In the early 1970s surfers fanned east and west of Bali discovering Garajagan or G-land in the Plengkung National Park on the eastern tip of Java and Lagundi Bay on Nias Island. Each of these discoveries were soon after represented in the surf media, which eventually led to the arrival of new tourists and subsequently new surf tourism industries in both places (Ponting 2008, Hugues-Dit-Ciles, 2009). Following increased visitation to Bali, G-Land, and Nias, entrepreneurs, surfers, and the surf media branched out to other areas of Indonesia, most notably, the Mentawai Island chain, Sumatra, Lombok, Bawa, Asu, and Sumbawa between the early 1980s

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9 Many magazine articles and films, most notably, the film *Morning of the Earth* in 1971.
through the early 1990s. Significant tourism development is now also occurring in the Banyak, Telo, and Hinakos islands, as well as, Simelue, Sumba, and Timor islands.

Figure 1.6: Roving Banditry in Indonesian Surf Tourism

This spatial expansion in Indonesia can be argued to have masked more localized overuse, to the point where nationwide stress seemed to come on rather abruptly, which is a common characteristic of any pattern of sequential exploitation (Berkes, 2006; Huitric, 2005; Myers & Worm, 2003). Signs of this are beginning to show now in DWST on a global scale. Local overuse has incentivized regional and nationwide overuse and now, DWST is pushing up against global limits. The problem of overuse has been documented in many case studies in the developing world, but this does not mean that the problem is contained in those well beaten surf paths. While resource stress at individual resource units has typically been overcome by finding new surf areas to start
tourism industries in the developing world, this is becoming increasingly difficult in the modern surf era.

1.6.2 Regional Travel Patterns

The myth that perfect unspoiled waves are out there somewhere is eroding due to physical constraints, as well as, social media beginning to have a larger role in the way conditions in developing world communities are represented and discussed. This indicates the importance of beginning to think about surf tourism on a global scale and trying to understand how seemingly isolated surf tourism developments throughout remote coastal regions in the developing world are connected at a global scale. Most research on DWST has focused on the impacts at individual sites rather than on a global scale. However, most surfers do not just travel to surf one surf-break in the developing world and then go home. Surfers travel between waves, sometimes from a home base, or often they pack up and move to an area nearby that offers a different surfing experience. According to Dolnicar and Fluker’s (2003b) analysis, 73 percent of their respondents prefer to move through a variety of areas within a destination once they arrive rather than surf only one break.
Figure 1.7: Nort Peru – Regional Resource System (copied from Magicseaweed.com)

Figure 1.7 shows a surf map of the area, considered North Peru on Magicseaweed.com. As I observed during my fieldwork in Lobitos (found in the northwest corner of figure 1.7) many surfers had come down to surf from Ecuador and planned to surf farther south in Chicama known as the longest wave in the world. For Chicama to break properly (consistency variable), it needs a large swell (more than 10 ft) with a long period (more than 15 seconds). This is more the exception than the norm, which means that surfers will typically surf other areas on this map and keep an eye out on the internet for conditions that would warrant a trip to Chicama. This ties into the technological component when trying to understand human flows within the system and reveals how looking at the DWST SES on a region scale can offer a way to more

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10 It is noteworthy that many planned to also travel farther south in the central and south areas of Peru not shown in this map
adequately address this concern. For all of the reasons noted above, DWST is best seen as a global SES comprised of many regional SESs, which are made up of individual surf-break SESs. The variables and sub-variables at each scale remain consistent which make the SES framework versatile and well suited to discuss the DWST problem at different levels with a common language and framework.

1.7 Framework Assessment for Sustainable Surf Tourism (FASST)

Surf tourism can be looked at different scales. There are global, regional, and local contexts all worthy of consideration and careful attention. Regardless of what scale is the focal point of study, the pertinent question of DWST is related to assessing the sustainability of the surf tourism which manifests in different contexts. Sustainability and sustainable development, for the last three decades, have been some of the most frequently uttered terms in political discussions, college classrooms, and marketing campaigns. Most trace the modern origins of these terms to the 1980 World Conservation Strategy (IUCN et al., 1990) and the popularization of the term by the Brundtland Report (WCED, 1987) (Hopewood, 2005). The frequency of their use is, perhaps, more symbolic of the ambiguity of their definitions, than any real shift in the direction of more social and environmental consciousness (Dryzek & Schlosberg, 1998).

Dryzek and Schlosberg (1998) suggest that the concept obscures the basic contradiction between the finiteness of the earth, with natural self-regulating systems operating with limits, and the expansionary nature of industrial society. In this work,
‘sustainability’ is a social construct, born from complex technology, environment, and society (TES) interrelations and is gaining attention precisely because of environmental limits being reached by a social system built on technological progress and economic growth. More often than not, scholars discuss sustainability in dissected social, environmental, and economic terms and build elaborate indices to try and declare whether the conditions of development in a given context are sustainable (or not).

Hugues-Dit-Ciles (2009) and Martin and Assenov (2013) present examples of extending this rigorous approach to DWST case studies. Hugues-Dit-Ciles (2009) observed and conducted many interviews in both Tavarua, Fiji and Lagundri Bay, Nias, Indonesia, and carefully assessed the sustainability of surf tourism based on qualitative social, economic, and environmental indicators. Martin and Assenov (2013) built a 27 criterion surf resource sustainability index (SRSI), with each category filed under greater social, economic, environmental, and governance groupings, and used it to assess the sustainability of two surfing areas in Thailand. These studies are extremely helpful in building an understanding of the nuance involved with DWST, however, this work will not move in this direction and will instead discuss sustainability in a more broad theoretical sense.

Herein, sustainability is not something that exists, or can be quantified, but more of an ideological guide for encouraging and discouraging different behaviors and activities in the development process. It is a concept that must always be debated and should evolve with the circumstances. The Framework Assessment for Sustainable Surf tourism (FASST) is a normative and anti-neoliberal approach, but it is useful for
organizing a discussion of what is sustainable at different scales and in different contexts. This approach is taken in this work to assess DWST specifically because there are many stakeholders involved that are forced to come to terms with new realities brought into their coastal towns as a result of surf tourism development. A fisherman not involved with the industry, a local surfer, a foreign resort entrepreneur, a researcher from a high income OECD country, an environmental NGO, and the natural regenerative capacity of the ecosystem will all have different perspectives on what sustainability means. Taking sustainability as an ideological guiding principle rather than a specific set of indices comes from an epistemological belief that no stakeholder’s view should be hierarchically superior to any other, and all should be considered in some way.

Mowforth and Munt (1998) bring up a very simple, but poignant question that should be considered in any definition of sustainability, what are we sustaining, and for whom? This question is more important than any elaborate scheme for devising sustainability indices, because any scheme ever created must have been built from this general pretense. When scholars discuss surf tourism to the developing world, if their definition of sustainability is built on environmental indicators (water quality, visible solid waste pollution, etc.), un-crowded surfing conditions, and cultural preservation (Buckley, 2002a), then considerations of equitably spreading economic benefits associated with the industry might very well be left out of an assessment of sustainability. This may come in to stark contrast with government and other local stakeholders’ ideals about sustainability in the region. In the Tavarua Fiji case, while the resort owners, tribes leasing their fishing areas, and scholars researching the area found the model to be
sustainable, many local Fijian surfers from nearby islands and government officials argued on the contrary and this had a lot to do with the breakdown of the privatization model that kept development in check and the water clean (Buckley, 2002a, 2002b, Hugues-Dit-Ciles, 2009; Ponting and O’Brien, 2013).

The FASST model outlined in Ponting and O’Brien’s (2013) is used in this work because it does not assess the sustainability of surf tourism in the developing world in simple binary terms (sustainable or not), but instead works in the tradition of seeing sustainability as an ethical guiding principle (Vries, 2013). The FASST model that will be referred to in the remainder of this work was built from the work of concerned surfer/scholars who found in their studies of surf tourism in the Indo-pacific Islands that surf tourism was exploitative, and as a result, caused more harm than benefit to the local communities and environments surrounding the foreign dominated surf industry. FASST was born from a very direct question coming out of this research, when all stakeholders are considered, what factors are causing DWST to be unsustainable? Once these factors were isolated, they believed, it would then be possible to build a better understanding of how to look at different approaches to prevent the historic surf tourism development failures. The first thee prongs of the FASST approach came directly out of the research conducted by Ponting et. al (2005). They reviewed the discourse emanating from the surf media and the type of tourism it inspired in the Mentawai Islands in Indonesia and assessed the foreign surf charter boat operations that emerged in Indonesia against ecotourism guiding principles coming out of interdisciplinary work on sustainable tourism in general. These authors found that the key factors leading to the unsustainable
conditions in the Mentawaiis could be attributed to three factors: (1) neoliberal approaches to development (2) lack of coordinated long term planning taking limits to growth in consideration and (3) a failure to facilitate meaningful cross-cultural interaction. O’Brien and Ponting (2013) then used these three analytical categories to assess the sustainability of the surf tourism development plan in Papua New Guinea (PNG) developed by the Surf Association of Papua New Guinea (SAPNG). This study revealed the positive benefits associated with the SAPNG’s approach to developing surfing as a sport at the local level. Some of the associated benefits were also depicted in the 2011 documentary film Splinters, which showed local surfers working together to put on a surf competition, build a surf camp, and receive financing to attend university in Australia. While there have been issues associated with more New Guineans taking up surfing found, such as, a movement away from traditional livelihoods, O’Brien and Ponting (2013) argue that surfing in PNG helps to empower women, gives young people a healthy outlet which keeps them off of drugs and other criminal activity, establishes pride in their home, and increase capacity to participate in the industry. Due to their findings in PNG, Ponting and O’Brien (2013) added this fourth (4) criteria (developing surfing at the local level) to the original three in assessing the implications of surf-break liberalization in Fiji and in this study found that a fifth category should be considered in a unified FASST model and that is (5) that sustainable tourism should contribute to poverty alleviation in the DWST context. In short, after many studies, observations and interviews in different cases around the world, the FASST provides five normative guiding principles that attempt to reflect the current state of what should be considered in
any definition of sustainable surf tourism. These five categories will be used in this work to organize the discussion of VST as a DWST governance model currently operating in internet age, but these FASST criteria have been and can also be used to measure other approaches to surf tourism management.

1.7.1 A Distinct Move Away From Economically Neoliberal Approaches to Development

Neoliberal is a difficult word with no easy definition and it is all too often the used as a linguistic scapegoat for all of the problems of the world in many academic circles. While Milli Vanilli famously blamed it on the rain in their 80s pop hit, many academics blame ‘it’, whatever ‘it’, is, on neoliberalism. To be fair, this culpability is often warranted, but a major challenge to finding solutions to problems attributed to neoliberalism is moving away from an abstract theoretical understanding of it and developing strategies for localized resistance movements. In short, solutions are about understanding how global neoliberal forces manifest themselves in local contexts and seeking strategies to use them for local benefits or resist them (Lemos & Agrawal, 2006). David Harvey (2005) says neoliberalism is a “theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade” (Harvey, 2005: 2). Harvey (2005) says there has been a concerted shift in this direction by nation states in the 1970s, especially during the Thatcher and Reagan administrations at the end of that decade. The
way this theory was, and continues to be put in to practice, is by privatizing and creating markets out of everything, deregulating those markets, and withdrawing the state from many areas of social welfare. In many instances around the world, and especially in Latin America, developing countries have been forced to adopt this political economic agenda though a variety of means, including the forced removal of democratically elected, often left leaning politicians, and also through loan programs that come with contingency packages that ensure neoliberal political reforms (Harvey, 2005).

Tourism generally has been a neoliberal development tool espoused by international financial institutions. Beginning in the structural adjustment development phase (late 1960 to early 1980s), large infrastructural investments were argued to have the ability to shock struggling areas out of poverty. Potential future tourism receipts were argued to justify the large investments in roads, airport improvements, resort construction, and in electrification (Honey, 1999). Failures of the structural adjustment phase of large tourism growth began to be exposed following the world tourism conference in Manila in 1980, where world leaders declared that “tourism does more harm than good to people and societies in the Third World” (Nicholson-Lord, 1997). Basically, many people around the world were finding out that tourism receipts did not justify the large infrastructural investments purchased with foreign loans, foreign entrepreneurs and contractors earned the vast majority of the income benefits from this style of development, locals were typically excluded or at best given marginal service jobs, and environmental and social issues were rampant (Honey, 1999; Mowforth & Munt, 1998). There has now been a concerted shift towards a community development
paradigm within international financial institutions, but tourism is still propped up as a necessary component of environmentally and socially sound economic development. Many argue that even ecotourism, defined as “responsible travel to natural areas that conserves the environment and improves the well-being of local people” (Honey, 1999), still does not challenge the neoliberal development paradigm and typically involves superficial measures (green washing) as a business strategy in order to remain viable and cater to the new eco-friendly market demand segment (Fletcher, 2011; Honey, 1999; Mowforth & Munt, 1998).

In many ways DWST is a neoliberal phenomenon, it has been about making a market out of wave resources and opening new markets in isolated coastal communities built around the wave market. DWST helps to spread the neoliberal economic agenda to some places that may have otherwise remained quite isolated from these forces for some time to come. In this respect, DWST is in concert with Fletcher’s (2011) critique of ecotourism in general as a driver of neoliberal economic expansion. Fletcher (2011) argues that sustainable tourism is more about sustaining capitalism than sustaining a level of environmental or social resilience. DWST is new niche industry that helps to sustain tourism, meaning it is itself a market that facilitates overcoming limits to tourism growth and expansion, often in the name of “sustainable” tourism.

Ponting et al. (2005) established movement away from neoliberal development strategies as a category in the FASST model because of the way neoliberalism came to influence the development reality in the Mentawai Islands. Ponting et al. (2005) found that in the “rush to establish a foothold, foreign tour operators have colonized the
Mentawai’s resources with…unregulated free-market approaches to development” that “place local people as just one relatively powerless stakeholder group amongst many others” (2005: 150). Well-capitalized foreign entrepreneurs began operations in Indonesia with limited barriers to entry and very little regulation. They set up their businesses to maximize profits and as a result, the money stayed in the hands of the foreign owner operators and with very little trickling down to the locals living in the area (Ponting et al., 2005). While most of the benefits were siphoned out of the area by foreign entrepreneurs under this approach to DWST, most of the environmental and cultural cost were shouldered by the local people living on the islands adjacent to the surf breaks. This is why neoliberalism and neo-colonialism can be used interchangeably when discussing DWST, they are both at their core about accumulation by dispossession and exacerbating core/periphery income and power imbalances.

Beyond focusing on surf tourism in Indonesia, Ponting and O’Brien (2013) suggest that in addition to neoliberal approaches ignoring environmental issues and local participation (Ponting et al, 2005; Scheyvens, 2011; Wood, 2009) that it also stifles exploration in to alternative models of tourism. Once a liberalized marketplace is established, it become well entrenched with powerful actors and it is hard to implement alternatives (Buckley 2002a, 2002b), for example, a model of community resource ownership and control. Many also argue that the invisible hand cannot be relied on to foster sustainable use of open access natural resources (Healy, 2006; Manning 2007; Ostrom, 1990). Some focus on surf-breaks specifically, as open access resources, which the free-market has not historically allocated in accordance with tourist desires, nor
community cultural and environmental concerns in the long run (Buckley, 2002b; Ponting, 2012; Ponting & O’Brien 2013). Ponting and O’Brien (2013) argue that the removal of regulatory mechanisms in Fiji, which encouraged joint ventures with customary resource owners, represents a purposeful shift toward economic neoliberalism. They warn that “deficits in knowledge related to entrepreneurship, in management training and in access to capital will hamper indigenous Fijian’s ability to compete with foreign investors and established local elites.” Basically, that without a concerted effort to develop mechanisms for alternative development approaches, Fijians and people throughout the developing world will be fated to experience a neoliberal development model that has historically failed the people and environments in the developing world.

1.7.2 Formal Coordinated Long-term Planning Taking into Consideration Limits to Growth

A key facet of neoliberal economic theory is that all limits to growth are seen as surmountable with greater wealth and technological advance (Simon, 1981). This brings up what Spangenberg (2010) calls the catch 22 in this type of neoliberal thought: that without growth, no sustainability, and for the sake of growth, no sustainability policy. When we think about it this way, it becomes clear that within a neoliberal agenda we are left with growth and not sustainability, which has been the case in most DWST locations that have been studied up to this point in time. The idea that there are biophysical limits to growth, which are based on the laws of thermodynamics, makes up the theoretical underpinning for Herman Daly’s argument that sustainable growth is an impossibility.
theorem (1997). Rather than focusing on growth in-and-of-itself, taking into consideration limits to growth can help to shift the focus of development to fostering normative benchmarks of environmental, social, and economic justice. Any attempt, therefore, to move away from a neoliberal development model would in theory involve incorporating limits to growth.

Unmanaged surf tourism growth has been found in many studies to lead to rapid expansion of surf tourism in once isolated coastal communities. As entrepreneurs clamor for market share, they build hotels and resorts and establish surf charter boats to the point where the ecosystem struggles to provide sufficient sinks for waste, an ample quantity of clean drinking water, and there is also typically down market pressure on prices as areas become overcrowded, after all, all those new businesses need customers to remain viable. The results of the neoliberal development model, with its inherent lack of formal planning to account for limits to growth, have been found to have negative social and environmental impacts at many locations around the world – the Mentawai Island in Indonesia (Ponting, et al 2005; Ponting 2012), Bali, Indonesia (Barilloti, 2002), Lagundri Bay, Nias Indonesia (Hugues-Dit-Ciles, 2009), Jaco, Costa Rica (Krause, 2012; Larson, 2002; Reed, 1999; Tantamjarik, 2004), Puerto Vallarta, Mexico (Comer, 2010), and El Tunco, El Salvador (Latarola, 2011) – the same threats are possible in Fiji’s Mamanuca Islands now that growth limiting protection have been removed in a government decree (Ponting & O’Brien, 2013).

In their study of SAPNG management plan, which allocates quotas for different surfing areas throughout PNG, O’Brien and Ponting (2013) find that coordinated
planning, taking into consideration limits to growth can empower the community to “build an asset base, up-skill and build personal capacity, protect traditional ownership of natural resources, and to ensure a living wage, reasonable working conditions and job security” (Ponting and O’Brien, 2013). When looking at what works and what doesn’t at many surf tourism sites around the developing world, it is important to consider what plans are in place that seek to take in to account that there are biophysical, socio-psychological, and cultural limits to growth to ensure a sustainable and desirable surf tourism industry for the majority of stakeholders involved (Buckley, 2002a, 2002b).

1.7.3 Systematic Attempts to Foster Cross-cultural Understanding

DWST was in many respects, built on imagery of surfing space in the developing world that left out local realities. Because of this, more often than not, surf tourists sought warm water, tropical environments, and quality surfing conditions, rather than interaction with local people. Many foreign all-inclusive tour operators where happy to construct ‘tourist bubbles’ (Carrier & Macleod, 2005) and offer tourists the opportunity to “surf their brains out” with only minimal opportunities to gaze at the indigenous folks living in the vicinity of the waves. These operators often perpetuated myths that local indigenous people not only wanted to be left alone, but that it was for their own good (Ponting & McDonald, 2013). This model set up the conditions for surf tourism to take place around, rather than with local communities (O’Brien & Ponting, 2013; Ponting et
al., 2005) and this has been shown to breed local resistance to the tourism industry (Haywood, 1988; Ponting et al., 2005; Wearing & Ponting, 2009).

Rather than sidelining locals and colonizing the economic benefits garnered from the wave resources where they live, mechanisms to incorporate cross-cultural understanding in DWST planning can facilitate far reaching benefits. At the most idealistic level, interaction across cultures breeds creativity and innovation. J.S Mill said:

> It is hardly possible to overstate the value…of placing human beings in contact with persons dissimilar to themselves, and with modes of thought and actions unlike those with which they are familiar…Such communication has always been, and is peculiarly in the present age, one of the primary sources of progress (quoted in Pariser, 2011:77).

In the DWST context this is a two-way street. How are members of isolated coastal communities supposed to be empowered to enter the complex surf tourism market without interacting with surf tourists? When locals ‘gaze’ at tourists without interacting with them, locals also build myths about surf tourist that might end up damaging their ability to understand what they want. To run a business locals need to know why surf tourists have traveled to their homes, and ultimately how to use the presence of tourists as an avenue for income generation to help boost their families out of poverty in way that is culturally and environmentally sustainable. Many scholars also claim that cross-cultural interaction is the bedrock for destination communities to define their involvement in the surf tourism industry, as well as, establish economic linkages to a broader range of economic sectors (Buckley & Ollenburg, 2013; Mowforth and Munt, 2009; Ponting & O’Brien, 2013). Thus, when locals establish enterprises, after understanding tourists better through interaction, they are more likely to incorporate other local businesses in a
way that all-inclusive resorts may not have the ability to. For example, local entrepreneurs can specialize in different aspects of the industry (lodging, surf lessons, transport, food collection, cooking, handicrafts, cultural demonstrations, etc.) and spread benefits more evenly throughout the community.

For the tourists, the realization of the damages that surf tourism has historically caused can also be thought of as the result of cross-cultural interaction. Understanding that there is more to DWST than booking a packaged tour from your computer, surfing as much as you can while in country, and then leaving, was at its base level born from surfers interacting with local communities and beginning to understand their feelings about growing surf tourism in their hometowns. This type of interaction is responsible for many new models of surf tourism development that seek to empower local communities. Even though the outcomes of this interaction have not been adequately studied in the DWST field, cross-cultural interaction has played a role in much of the research in the field and also developing measures to combat the historic exploitation.

Tourists and hosts can each benefit from meaningful cultural interaction because it provides possibilities for each to crossover their own respective cultural boundaries. Cross-cultural understanding can help tourists to understand that host communities do not exist within essentialized static cultures, but are engaged in a process of cultural evolution (MacCannell, 1992). In interpreting, understanding, and thinking about developing world cultures differently, tourists can develop more thoughtful and sensitive approaches to interacting with people and environments. In this sense, cross cultural interaction can help tourists to free themselves from their own cultural and ideological
mental shackles, which in effect can help to challenge dominant neoliberal economic organizing structures and establish new less damaging approaches to earning a living and traveling. On the other side of this, through meaningful cross cultural interaction, host cultures can use the presence of tourists as a mirror for reflecting back upon their own cultures (Guerron-Montero, 2006). Through experiencing tourism and understanding tourists in a more holistic manner, host communities can reflect on what is worth preserving within their traditional cultures and have a dialogue concerning what may need to change to better their communities. In this sense, cross-cultural interaction, can become a catalyst for host communities to become powerful actors in representing and understanding themselves, which can help local communities to form stronger identities and also guide the future of tourism in their hometowns as individuals decide how, if, and under what terms they wish to be involved with tourism.

1.7.4 Village-level Surf-sport Development

O’Brien and Ponting (2013) used the three aforementioned criteria in their analysis of the surf tourism management plan in the Surf Association of Papua New Guinea (SAPNG), which is perhaps the most comprehensive nationwide attempt to build institutional safeguards for future surf tourism growth in the developing world. One of the key finding in O’Brien and Ponting’s (2013) work was that this three prong analysis failed to appreciate the importance of locals taking up surfing to the viability of sustainable surf tourism. Many early surf tourism regimes, dominated by foreign
entrepreneurs, often discouraged the transmission of surfing knowledge and equipment to the local population as a mechanism for keeping waves uncrowded for high paying tourists and many tourism operators directly discourage almost all interaction with indigenous groups living near the waves they surfed (O’Brien & Ponting, 2013; Ponting & McDonald, 2013). While discouraging locals from surfing may work as a short term solution to keeping waves uncrowded, this approach increases the likelihood in the future that locals will revolt against the industry (Ponting et al., 2005). Further, if locals do end up becoming surfers themselves and if they have a stake in the industry they will be less likely to threaten and fight with tourists in the water and be more welcoming to tourists. Because any consideration of surf tourism, as ‘sustainable,’ inherently indicates that there is long-term viability, it is important to consider how incorporating a concerted effort to transmit surfing knowledge to the local population impacts an area.

O’Brien and Ponting (2013) decided that this category should be added to the FASST model after studying surf tourism in PNG because they found that there were many social benefits associated with the development of surfing at the village level. The SAPNG, uses the money they charge to surf tourist (daily wave access fee for each established surfing zone), in part, to encourage grassroots surfing development. Because equipment is expensive and there are costs associated with beginning clan based surf clubs, the SAPNG has made encouraging local level sport development an integral part of the area management plan and has devoted significant resources to this end. The clubs have become a way of allocating communal surfboards and also become the base structure for many local surf competitions. The clubs have also been found to be a
general meeting area for youth to get together and do other healthy activities, in addition to surfing, and have become a new focal point for social activities in PNG (O’Brien & Ponting, 2013). Because of this, participation in surfing and involvement in a surf club has been found to divert youth from criminal and gang activity (O’Brien & Ponting, 2013). Participation in surfing in-and-of-itsel can help to channel youth away from nefarious activities, but also, providing money to help locals participate in national and international surf competitions, heightens the focus of many promising surfers and also creates a new avenue for getting a quality education and perhaps helping to lift their families out of poverty. Participation in surfing has also been found to help challenge repressive gender roles in local communities (Comer, 2010; O’Brien & Ponting, 2013) and also takes place in a borderland where racial and cultural inequality can be significantly challenged and overcome (Walker, 2008; Wood, 2009).

While many of the benefits just mentioned happen quite quickly after involvement, when taking a long view on sustainable surf tourism, involvement in surfing helps to build the local capacity to earn income from surfing tourism and also helps locals become powerful stakeholders in the future decision making process. Local surfers tend to interact with tourists and grow to understand what it is they want when they visit, which is knowledge that can be turned into many revenue generating activities to supplement subsistence incomes. When local surfers are encouraged to surf and perhaps develop livelihoods tied to surf tourism, they then become advocates of the surf tourism industry rather than aggressive locals trying to intimidate surfers from visiting (O’Brien & Ponting, 2013). Perhaps most importantly, if local surfers understand surf tourism they
can then become more knowledgeable and informed participants in future discussions concerning the direction of surf tourism development in their villages. All told, sustainable surf tourism is reliant upon a strong local surf community.

1.7.5 Incorporating Measures to Tackle Poverty

The final category really draws on all four of the other criteria mentioned, but is also important as a stand-alone category as well. When discussing surf tourism in remote locations in the developing world, a central concern must be alleviating poverty. When proposing sustainable growth as an impossibility theorem, Daly (1998) builds in the idea that there is a real need for increasing the stock of energy and material throughput to areas in the developing world. While industrialized countries, need to develop, or change their current path of material overabundance to one in concert with the re-generative capacity of the earth, many areas in the developing world really need to grow in the traditional economic sense, in order to achieve the conditions set forth in the Millennium Development Goals (MGDs). Suggesting that sustainable surf tourism should alleviate poverty is surely a normative value claim coming from researchers and social entrepreneurs from high income OECD countries and not necessarily the will of the elites living in the areas in question, but none-the-less, poverty alleviation should be considered a necessary component of sustainable surf tourism as a theoretical guiding principle. It is also important to mention that introducing pro-poor surf tourism to remote coastal communities in the developing world will not be a panacea of all social and
economic issues, but should be seen as an important mechanism for diversifying economic opportunity. This meaning that perhaps one child in a large family may work in the surf tourism industry and provide supplemental income to a family historically reliant of fisheries or agriculture. This could help the family earn income above subsistence that could be used for investing in education or capital to improve the family’s circumstances. Within this hypothetical discussion we must keep in mind that surf tourism, as mentioned prior, may be categorized as extremely seasonal, and there are issues associated with over-reliance on the industry due to seasonality and other concerns (Hughes-Dit-Ciles, 2009). When considering the poverty alleviating potential of surf tourism this ambition must, therefore, be tempered and situated within a realistic framework.

Ponting and O’Brien (2013) borrow from the work of Scheyvens and Russell (2012a, 2012b) to suggest three major conditions for fostering anti-poverty tourism which can serve as a guide for the fifth and final FASST category. The first condition being that sustainable surf tourism should provide “opportunity” to people living where the waves are. This means that there should be concerted effort and perhaps policy parameters in places to ensure locals receive lease payments for the usage of their wave resources (where applicable) and that linkages to other sectors, such as agriculture, handicrafts, and local fisheries are prioritized as a mechanism for spreading economic benefits associated with surf tourism to other area industries (Ponting & O’Brien, 2013). Also, those employed in foreign owned operations should earn a living full time wage and have opportunities for progression to higher paying positions. The next condition in anti-
poverty surf tourism under this FASST category umbrella is “empowerment.” Ponting and O’Brien (2013) suggest that this involves training for staff, respect for culture and traditions, and support for indigenous business ownership and participation in decision making. This also involves gender and race empowerment where applicable and empowering locals to make development decisions and define their own stake in the industry. And the final key condition is “security.” This refers to job security, medical benefits, measures to ensure environmental and economic resilience, contributions to community groups and respect for traditional property rights where they exist or are perceived to exist (Ponting & O’Brien, 2013; Scheyvens & Russell, 2012).

Again, the FASST framework is normative, but is the best tool available at present for assessing the sustainability of DWST at different scales. Also, because FASST has been used to evaluate surf tourism market liberalization in Fiji and the Surf Association of Papua New Guinea, as this work moves on to discuss autonomous self-organization in the form of VST, keeping with the FASST framework will be useful for making comparative judgments. The five criteria were highlighted in this section so that they can be referred back to throughout this work and also so that they can be used in analyzing VST in Lobitos, Peru later in this work.
1.8 Chapter Outline

Chapter 1 provided an overview of the dissertation research. It introduced both the DWST as its own unique field of study and the SES framework to offer a more robust understating of dynamic CPR systems, as well as, to contextualize user-self organization in DWST. It also went over the FASST framework, which was selected as the most adequate tool for discussing sustainability in DWST at different scales and in different contexts.

Chapter 2 situates each scale that we can analyze the surf tourism SES within a coevolving Technology, Environment, and Society (TES) framework. The chapter takes a deep historical approach to show how surfing was adopted in ancient Polynesia, appropriated in the West, and eventually developed into a global tourism phenomena as a function of changing TES dynamics. The role of technological advances in surfing equipment and in communication technologies to the creation of DWST will be central to this discussion. This chapter builds a foundation for understanding the technological roots of the resources problem and its associated impacts.

Chapter 3 discusses the historical problems associated with DWST and examines internet communication technology (ICT) and surf tourism. It explains why many scholars argue that DWST has resembled a neo-colonial phenomenon – a situation where wave resources in the periphery are exploited by foreign entrepreneurs from the core. The discussion focuses on the way in which DWST evolved, initially fueled by a small niche surf media through magazines and surf videos. It reviews how regimes of power
including foreign entrepreneurs, the surf media, surf companies, and wealthy surfers sought to create and maintain tourist bubbles which sheltered tourist from on-the-ground realities and kept local people from experiencing substantial benefits from surf tourism in their communities. The chapter concludes by examining how advances in ICTs exacerbate conditions of crowding in remote coastal communities, as well as, accelerate the pace in which new areas are discovered and pushed towards over-development.

Chapter 4 explains the “Surf Spring” conceptual framework to highlight how ICTs can provide an infrastructure for an ‘online surrounding gaze’ to raise awareness about issues associated with exploitation and build popular support for social movements and governance strategies addressing these issues. After discussing different models of user self-organized governance happening in DWST, this chapter will set the stage for applying this conceptual framework to volunteer surf tourism (VST) in Lobitos Peru. Finally the methodology for gathering and analyzing data will be outlined.

Chapter 5 situates the Lobitos case study within the combined TES/SES framework offered in this study. It discusses surf tourism in Peru and the processes which led to surf tourism growth in Lobitos. It will ultimately conclude with a description of the organizational structure of WAVES for development and the specific programs it implements on the ground in Lobitos.

The FASST framework will then be used in Chapter 6 to organize an analysis and reflection of the ability of the governance model facilitated by WAVES to reduce or eliminate the negative impacts historically associated with rapid surf inspired development.
In the concluding chapter, the findings and implications of this study will be presented. This will highlight the importance of understanding how tourism evolves with changing technological inputs and the role governance can play in attempting to reduce or eliminate negative surf tourism impacts. Avenues of future research will also be presented.
Chapter 2

A COEVOLUTIONARY HISTORY OF SURFING

2.1 Situating the DWST SES: Applying a Coevolutionary TES Framework

This chapter provides a coevolutionary history of surfing to help to contextualize how certain TES inter-relationships create the DWST SESs at different scales and how the greater TES parameters and the SESs changes together over time. A major limitation in SES studies is that there is a lack of attention placed on technology when trying to understand environment and society interactions. When studying DWST, however, it is critical to ask whether so many remote coastal communities in the developing world would be crowded with surfers from industrialized countries had it not been for the way surf-forecasts, real time web-cams, and information about surfing all over the world became available on the web; surfboards had become so light and small; and airlines found ways to offer affordable airfare to individuals with a few mouse strokes? This chapter will introduce the TES concept to surf tourism in order to convey a new understanding of the SES and set the stage for discussing technology and governance in later chapters.

DWST has been defined as a multi-scalare SES and the FASST framework was outlined for assessing the sustainability of DWST. If Ostrom’s (2009) SES framework was directly adopted to studies on surf tourism, one would say that DWST is
created/invented within a particular social, economic and political setting and then the interactions and outcomes within the DWST SES feed into and impact related ecosystems. This system is linear, the overall setting leads to the creation/invention of DWST and then there are outputs from the way DWST occurs that impact ecosystems. This is a useful way to think about how resource systems based on common-pool resource units are invented within a particular social, economic, and political setting, but also how they must then be nurtured, maintained, and protected with governance systems once invented (Helfrich & Hass, 2009). The term ‘invented’ highlights the reality that many commons dilemmas are not inherent, but rather result from the way societies choose to interact with the natural world.

The idea that surfing waves themselves are something that can be overused and collapse is an idea that has only been around for decades. For most of human history in most places on earth, ocean waves were more of a destructive force or an obstacle to human progress then the source of human joy through playful interaction. And it is only recently that ocean waves have been considered threatened by too many humans trying to siphon their leisure out of this natural resource. In short, it was only after certain evolutionary changes that waves became a resource that are now often considered scarce. This chapter argues that technology has been a major driving force of this evolution.

This section updates Ostrom’s SES model to studies of DWST. In Ostrom’s (2009) conceptual map, technologies used is one of many sub-variables found in the user category that is not a significant predictor of efforts to self-organize. When adopting the SES framework to voluntary initiatives in nature based tourism, Blanco (2011) leaves
technology out of her conceptual map and discussion completely. Careful study of the history of surfing and current models of user self-organization reveal that technology plays a much more central role in the manner in which surf tourism evolves, the way users interact with resource units, and the governance of common-pool wave resources. This chapter argues that technology has been central component to surfing’s evolution over time and that current and future studies must examine DWST SES at different scales in a way that better combines technology, environment, and society (TES) interactions. Rather than looking at the social, economic, and political setting (S) giving rise to the SES, which in turn has other ecosystem impacts (ECO), as is done in Ostrom’s (2009) study, Figure 2.1 illustrates a new conceptual map integral to the framework created for this study that requires combining both of these variables (S & ECO) into one variable (TES) that both situates (TES1) and is impacted by (TES2) variable interactions within the DWST SES (see Figure 2.1). In this process the system becomes evolutionary rather than linear.

Figure 2.1  New Higher Tier Variables – TES
The history of surfing has been told many times by many different sources with varying degrees of depth. In the remainder of this chapter the history will be told using the TES framework proposed here as a guide to highlight the importance of these TES interactions to the way surfing has evolved from its inception to era leading up to the introduction of advances in ICTs. Tracing the history of surfing, while paying careful attention to technological change, supports the need for offering the new conceptual framework in this study for characterizing and better understanding DWST challenges and potential solutions.

2.2 A Deep Coevolutionary History of Surfing – Understanding the changing cultural fitness of surfing

2.2.1 Inception

If human culture in fact arises, develops, and renews itself through fresh activities in the mind, it may be modified and transformed by the same process (Mumford, 1970).

This section is meant to break down the surf cities, multibillion dollar surf companies, international surf contests, and the global surf tourism industry in order to appreciate their origins and the reality that new ideas can change the current state of surfing once there is a commonly held desire to do so – a desire that may be manifest in what is being called the “surf spring” herein. The first step in this process is to discuss how surfing was created. The renowned techno-skeptic, Jaques Ellul (1964), reminds us that we have no idea how an activity which once did not exist came be. In absence of
knowledge regarding the origin of ideas, societies tend to collectively suppose that any technological advancement comes from the execution of a process (technique) to increase the efficiency and effectiveness of that which came before. Almost every discussion of modern surfing suggests that surfboards came from Hawaii and then were constantly improved upon with western technological advances.

But where did the first surfboard come from? If we accept that the modern surfing milieu is at least at some level built from surfing’s ancient/mystical origin, there can be no more important question than asking how surfing came to be invented and through what cultural adaptations it was/is sustained. Contemplating the origin of surfing is part of a process to re-empower the mysterious activities of the mind that are discounted in hyper-rational societies because they cannot be probed by any instrument or be quantified. No matter how complex, wealthy, technological, large, and dispersed the surf world may appear now, it began with an idea, and new ideas can change the course anytime – and change quite rapidly considering the way modern ICTs open up spaces to spread ideas across continents in nanoseconds.

Stand-up surfing entered Hawaiian life circa 400 A.D (Finney & Houston, 1966; Scures, 1986) and this is commonly the starting point of any deep historical account of surfing. This section probes a bit deeper to ask where the idea to surf waves for

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11 This work will focus on stand-up surfing only and attribute this to Polynesian/Hawaiian Origins. I must note, however, there is documentation of fishermen in Peru’s pre-Hispanic Chimu and Mochica civilizations (Wood, 2009) riding waves on reed shaped fishing vessels called Reed Horses (Caballitos de Totora). This is left out of the discussion because the vessels where primarily for navigating the surf to fish, but were also used to ride waves when returning to shore. The Hawaiian boards were made for no other reason than to surf which is the focus of this paper.
pleasure came from? The act of moving with the energy of a wave was most likely an activity that Hawaiians accomplished for the utilitarian purpose of making it to land quicker and easier while swimming or returning to shore from fishing and trading voyages (in outrigger canoes and other ancient fishing and seafaring vessels) long before the advent of stand-up surfing for pleasure. To a potential surf innovator, experiencing and/or watching this sort of wave riding would have formed part of the visual and sensual stimuli from the external world that would have to have been translated into the mind, and made sense of with words and other symbols. Mumford (1970) calls this the process of ‘etherialization’ – the way in which thoughts enter the mind from doubting, questioning, and experiencing material reality. In interpreting the Mumford’s work, Carrithers (1992) calls etherialization the “returning to mind of…embodied cultural elements.” When beginning to think about complex TES relationships, this concept helps to make sense of the often overlooked process whereby the environment places pressures on the human mind and in many cases dictates which ideas prove most fit in certain contexts.

Many cultures survived off of fishing, trading and navigating the sea, as well as, lived in close proximity to warm water and quality waves, but the idea to begin stand up surfing was born in Polynesia/Hawaii due to the confluence of TES interactions that facilitated the conditions for creating and adopting this idea. The cold water crusading Vikings from Scandinavia, though prolific in the surf and capable of long distance ocean voyages did not invent surfing, one can speculate the cold waters and constant state of conquest and conflict did not lend themselves to developing an activity such as surfing.
In a place like Bali in Indonesia, the ocean conditions have always been impeccable for surfing (just ask any modern day surfer), but there were long standing cultural beliefs that instilled a deep seated fear for the ocean. The sea was seen as farthest location from the mountain tops where the gods were situated and the ocean was therefore seen as the dwelling place of unknown dangers (Moore, 2010). Also, as shown in the multiple tsunamis hitting Indonesia in the 21st century, this sort of natural violence may have been the physical source of this long standing aversion for the sea. Despite the warm waters and great surfing conditions, the Balinese relied more on agriculture and very near shore fisheries and did not develop any leisure activity even close to surfing. The sport’s origin is ascribed to the Polynesian/Hawaiian cultures that occupied warm wave filled waters in a geographically isolated region (environment); had established protein surpluses through advanced aquaculture and agriculture and vessels for navigating in the ocean (Technology); and believed in close commune and interaction with their gods embodied in nature (Society) (Westwick & Neushul, 2013). The point being that TES relations are crucial to defining which technologies become invented and used in any time/space in question. In ancient Hawaii, the TES interrelationships created the conditions for inventing surfing.

The dialectic between the processes of making sense of material reality and subconscious neural mind energy is what leads to early stage creation (Mumford, 1970). For an idea to materialize in the form of an object or process, it must be something that many individuals are thinking about subconsciously even before any attempt at articulation. For example, if one Hawaiian man or woman decided that standing up and
surfing on a plank of wood would be a good idea and found out how to articulate the idea to others, or perhaps demonstrate how it could be done, this idea would surely have died if it did not resonate with the internal dialectic going on in other people. The idea of standing up and riding across the face of waves for a longer amount of time and with more individual human control did resonate with other Hawaiians in or around the fifth century, or the idea would have found a quick death, as it the fate of the vast majority of mental activity. Most self-aware humans understand that the quantity of ideas that swim around in the head and die are far greater (orders of magnitude greater) than the ideas that actually turn into actions or things. Luckily for us, surfing was an idea that Hawaiians followed through with. The incorporation of the idea to surf, however, required a new technological artifact that at one point never existed, in this case, the surfboard. The idea had to take material form. The idea took material form in Hawaii because the social and environmental context made it a possibility.

The etymology of the word technology is born from the Greek word “techne,” which Aristotle discussed as the application of practical instrumental rationality to bring something into being – something equally capable of not being (Flyvbjerg, 2001). In this sense, the surfboard was not inevitable, it was the material embodiment of a shared idea. Furthermore, certain environmental and social parameters created the conditions for the idea. Hawaiians were well fed due to the surpluses from their advanced aqua-cultural system (fish ponds with sluice channels, water level, and salinity controls) and agricultural systems (terraces and irrigated fields for taro, tams and sweet potatoes, as well as, pig farming), which allowed them to take three months off each year from
cultivation to peruse leisure (Westwick & Neushul, 2013). This contributed to allowing Hawaiians the time to contemplate new artifacts and leisure pursuits such as the surfboard and surfing. The original surfboards were technological artifacts that provided the means for the end of individually riding waves for great distances with greater human control and maneuverability than a canoe or other sailing vessels would allow. The board became a means to harness the energy already present in waves so as to move along with their force. The surfboard, like all forms of technology, was born in the human mind, somewhere between the region where dreams and apparitions mesh with consciousness, or the way in which humans makes sense of and process that which is around them, as well as, that which is within them. In short, ideas that take material form in objects both come from within (materialization) and without (etherialization) of humans. This explains why very special social and environmental circumstances were required for this technology to be dreamt up and brought into material reality. No one can pretend to know what the process was like to bring the surfboard in to creation. All we know for sure is that at one point the artifact did not exist and then it did. This discussion is only intended to bring to light a framework proposed for how new things get created and to apply it to the inception of the surfboard. The idea that there was a surfboard to begin with is all too often taken for granted and failing to recognize the confluence of factors that led to the creation of this artifact stymies our ability to dream up new futures and steer the evolution of surfing.
2.2.2: Early Incorporation and Institutionalization

Technology, environment and society (TES) are inter-related, which is why the relationship between them is taken as the nodal starting point for analysis (Law, 1992; Johannesson, 2005) throughout this work. Norgaard says that “social and environmental systems coevolve such that environmental systems reflect the characteristics of social systems, their knowledge, values, social organization, and technologies – while social systems reflect the characteristics of environmental systems – their mix of species rates of productivity, spatial and temporal variation and resilience” (1994:40-41). Once stand up surfing was invented with the use of this new artifact, Hawaiian society then had to either shun or adapt to this new technological input and create boundaries for its use in society. When new ideas were entering people’s minds through observing and processing the material reality that surrounded Hawaiians at this time (etherialization),

Figure 2.2 Ancient Hawaiian Surfing: Courtesy of the Bishop Museum Archive (Copied from Marcus, 2009)
the surfboard was now a part of the material reality that had to be reckoned with and made sense of. The invention proved to not only be adopted in Hawaiian socio-cultural life, but became so successful that the societal structure surrounding surfing changed to accommodate the activity – they coevolved in relationship to one another. The nuances of how this process took place are not well known, but historical evidence suggests that the invention of surfing was so important to Hawaiian society that riding waves had come to indoctrinate ritual, spiritual, mythological, and legal significance (Clark, 2011; Finney & Houston, 1966). Examples of how enmeshed surfing and Hawaiian society became will now be highlighted in order to build an appreciation for the TES interrelationships that gave birth to surfing as a SES in ancient Hawaii and to begin a discussion of how TES interrelationships drive how surfing continues to evolve.

The first bit of noteworthy evidence that the surfboard and Hawaiian society evolved together was how pervasive the activity became. Most, if not all able bodied Hawaiians surfed. Some stayed prone, but most stood up on boards of various sizes. Ben Ellis, an early Calvinist missionary to Hawaii in the 19th century, noted that when the waves got really good: “the thatch houses of a whole village stood empty, and daily tasks such as farming, fishing, and tapa-making were left undone while an entire community – men, women, and children – enjoyed themselves in the rising surf and rushing white water (Lawler 2011:20). Ellis also said that, “[t]o see fifty or a hundred persons riding on an immense billow, half immersed in spray and foam, for a distance of several hundred yards together, is one of the most novel and interesting sports a foreigner can witness in these islands” (Clark, 2011:9). As these quotes and Figure 2.2 indicate, surfing waves in
pre-contact Hawaii were shared in a manner much differently than they are today where surfers are socialized into a system that requires one person ride a wave at a time. The TES framework that situated the surfing SES dictated a condition where dozens could share waves.

Surfing also took on social and religious significance in Hawaii and the environment was intertwined with the social. Something very different than neoliberalism dictated how, why, and where surfing took place in Hawaii. Good surfing conditions were said to be dictated by the gods and were something Hawaiians prayed for through songs and chants (Clark, 2011). It is well known that many ancient cultures believed that good soils and rains that enabled healthy harvests were dictated by divine forces, and for Hawaiians, this logic extended to surfing conditions. Alters were even built at marquee surf spots believed to be there as locations to pray for waves (Westwick & Neushul, 2013). Good waves in this society were seen as gifts from the gods and meant that it was time for leisure, a very different social/environmental interaction than most westerners can comprehend. Surfing became so significant that rules regarding the activity were built directly in to the system of laws (Kapu System) that guided Hawaiian life. The Kapu System dictated where different castes of people should surf and how each caste should pray for good waves. The most common surfing prayer/chant was called the pohuehue (Walker, 2008). While lashing the ocean water with a pohuehue vine (beach morning-glory) surfers would speak the following chant while calling out to the surf:
Arise! Arise, ye great surfsrom Kahiki [Tahiti]
The powerful curling waves.
Arise with the pohuehue
Well up, long raging surf. (Fornander, 1999 quoted from Walker, 2008)

Hawaiian mythology is also full of male and female heroes, gods and goddesses who surfed and many myths include love and honor lost and gained in the surf (Clark, 2011; Walker, 2011). The Hawaiian epic tale of Hi‘iakaikapolioplele, for example, which can be likened to the Hindu Ramayana epic, traces the journey of the Hawaiian goddess Hi‘iaka, as she travels and surfs in different locations across the island chain and encounters monsters, ghosts, gods and humans from other Polynesian islands (Clark, 2011). Hawaiian kings, including Kamehameha I, earned respect and political capital in the surf and in surf competitions. Surf competitions in some cases were a mode for resolving disputes, which occasionally involved intense gambling – suggesting surfing for ancient Hawaiians had an element of “deep play” (Geertz, 1972). Surfing also had ritual significance in many cultural ceremonies. Surfboards were named and the annual surfing ceremony, for example, began with chants that included the names of each surfer’s board. When the name of a surfer’s board was sung, his or her family was to make monetary tributes for next year’s ceremony (Clark, 2011). The song continued until sufficient funds were raised.

Furthermore, socio-cultural factors influenced technological change in surfing. Rules dictating how to make surfboards, what materials should be used and which rituals should accompany surfboard manufacturing were all built directly into the Kapu System (Stratford, 2010). There is, therefore, a reason surf technology remained relatively
unchanged from its adoption some 1,500 years ago until surfing began to catch on in the West during the middle of the twentieth century. The Kapu System had historically enshrined certain environmental protections and surfing had to remain within this system that also required anyone who cut down a coconut tree to plant two more in its stead (Kolter, 2006). In fact, Hawaiian scholars suggest that the Kapu system may have even been brought to Hawaii by a warring Tahitian colonizer named Pa’ao who was a surfer between the 11th and 13th century (Fornander & Stokes, 1969). Cultural ecologists maintain that values, kinship, customs, rituals, and taboos are related to the maintenance of the society’s interaction with its ecosystem (Norgaard, 1994:41). The Kapu system directly stated how and with which materials commoners and elites must construct their surfboards. Tinkering with modifications to the ancient surfboard or using other materials was not considered desirable technological progress, but against the law.

Beyond ecological, there were also socio-cultural reasons for controlling technological change in ancient surf culture. Surfboards were a marker of social class (Stratford, 2010). Just by looking at someone’s surfboard at this time you could tell their skill level and caste. Commoners constructed boards from the koa tree and the styles and sizes changed as different levels of skill where achieved. Commoner boards ranged from 6’ to 14’ depending on talent level. Westwick and Neushul (2013) refer back to this era and the ancient 6’ surfboards to scoff at the idea that the 6’ surfboards being designed in the 1970’s represented, as is often said, a short board revolution. The ruling class used an olo board that was between 14’ and 24’ in length. This board was made from the wood of the more buoyant and rare wili wili tree. The Kapu System dictated that a Kahuna
(skilled craftsmen) would search for the right tree, sacrifice a kumu fish as an offering to the gods and stand guard over the specimen overnight under prayer (Clark, 2011; Stratford, 2010). The type of coral used to shape the wood and the oils used to finish the board were also dictated and further rituals of dedication were practiced before the board could be taken into the water.

The inception of the surfboard changed Hawaiian social life and in turn, the social milieu influenced technological change. As we can see through these brief examples, the invention of surfing eventually permeated the entire Hawaiian society as the idea gradually became institutionalized through a slow process of experimentation and coevolution. Eventually, this institutionalization, built from the original idea, allowed for the creation of a closed society for the prevention of change – a fully externalized, socialized state, shared by everyone (Mumford, 1970) with rules to govern how, when, and with what to practice surfing. When Europeans first traveled to Hawaii in the late 18th century, they established contact with a fully institutionalized surf culture. One with its own flaws, but a system that maintained codes of conduct that ensured surfing worked within the societal structure and continued to adhere to environmental safeguards.

2.2.3 Hawaiian Surf Decline

From a coevolutionary perspective, surfing declined in Hawaii because of different selective pressures brought on by western influences in Hawaii following Captain Cook’s arrival in 1778, subsequent Christian missionary settlements throughout
the 1800s (Marcus, 2009), and then through pressures brought on later in that century from agricultural export business venture capitalists (Westwick & Neushul, 2013). Westerners brought new technologies, cultural practices, and environmental changes to Hawaii. These factors combined to dismantle the Kapu System that guided Hawaiian life for centuries and this process can be best understood with how these European inputs interacted with and changed the TES interactions in Hawaii. Simple explanations for decline of the Kapu System and the decline in surfing’s cultural significance, are often given, but are not adequate in this framework. Technological inputs such as alcohol, advanced weaponry and long distance shipping vessels did not cause this decline on their own. A cultural system that that championed Christianity, productivity, and sexual modesty did not supplant the ancient system because it was superior, was forced upon Hawaiians, or merely because Hawaiians saw foreigners breaking their rules. And the decline of the native Hawaiian population brought on by the introduction of European diseases did not alone guarantee the decline of surfing and the once dominant system of laws. All of these alterations changed the selective pressures concerning fitness within the other categories.

When disease decimated the population from somewhere between 400,000 and 800,000 native Hawaiians when Cook arrived in the 1778 to 40,000 in 1896 (Kampion, 2003; Marcus, 2009), this environmental change diminished the capacity for native resistance to cultural and technological pressures. This is to say that the environmental change brought on by the entrance of new bacteria and viruses that Hawaiians had not developed immunity for (due mostly to the intense geographic isolation) had an impact
on what social structures proved fit given the environmental change. New western societal structures also changed the environment as different crops were grown (cash crops for export) with different agricultural styles (industrialized monoculture farming), thus changing the environmental landscape and human/environment interactions. Westwick and Neushul (2013) argue that the introduction of the cash economy, leading to a loss of leisure time once so integral to Hawaiian life, was most likely the greatest contributing factor to the decline of surfing in Hawaii, much more so than the missionary pressures, which has typically been offered as the paramount cause of decline by surf historians. In short, a confluence of coevolving TES factors, more so than any one factor, is what led to the decline of surfing in 19th century Hawaii. Environmental changes brought on by a cash economy and disease; social changes propelled by colonialism and Christianity; and technological changes combined to bring down the Hawaiian structure and the cultural significance of surfing.

2.3 Surf Renaissance- Selling Surfing & Surfing Selling

Even though surfing was directly persecuted and the Kapu System that once effectively institutionalized and regulated the activity in Hawaiian society disbanded, surfing did not stop all together. Many popular accounts of surfing claim that western pioneers revived surfing from the dead, but the fact remains that a small isolated group of Hawaiians formed a tight-knit community to support one another in their efforts to
continue surfing (Walker, 2011). Westerners did not re-invent surfing, they saw Hawaiians doing it and were taught how to by Hawaiian surfers. Some argue that these surfing holdouts gave birth to the countercultural cachet that has been present throughout surf history and continues to be an important component of the subculture (Westwick & Neushul, 2013). What is most important for this section of this work is, however, that while the Calvinist social pressures and inadvertent environmental pressures relegated surfing to the margins of Hawaii for most of the 19th century, the fitness of the activity changed in the early 20th century and surfing began to take on a new form of social value to Westerners. Surfing was intriguing, it was different, and as such, had value that could compel people to buy magazines, travel, and invest in real estate. Writers such as Jack London and Mark Twain wrote tales of witnessing and trying surf in the Hawaiian Islands. These stories appealed greatly to the readership in the lower 48. Subsequently, real estate developers saw surfing as a way to lure wealthy Americans to Hawaii to vacation and purchase property. The symbolic importance of surfing began to swell, mostly because it was effective at selling things, including a lifestyle.

To continue with the coevolutionary framework, social circumstances began to change in the U.S. as new cultural phase of modernity began to supersede the religious asceticism that dominated from the early settlement era up until the period of rapid industrialization in the 1900s. Mass production, militarization, specialization, urbanization, and electrification all combined to alter the environmental, social, and technological relationships in North America and were themselves products of the ways these entities coevolved. Surfing was symbolic of a contrast to all that was modern at
this time – it did not foul the environment or require domination over nature, it prioritized play above work, required very little clothing, depended on natural rhythms, and required tactile connection with the natural world and friends. In this sense, surfing was the antithesis of the production principle (Marcuse, 1966) and rational scientific ordering structures that so characterized rapid industrialization (Lawler, 2011). While the old religious order saw this as reason to discourage the activity, in a societal structure becoming dominated by mass consumption, surfing’s novelty and otherness became something that could be translated into profits. Further, westerners with the means to visit Hawaii and profit from this otherness had a monopoly on how Hawaii was represented back to the West. There was an incentive to portray surfing and Hawaii in a fetishized fashion – to glorify the activity and the place and to trump up their contrasts with the alienating effects of modernity. When there were few voices representing surfing and Hawaii to the rest of the world, these voices became powerful and authoritative.

It was soon discovered that Hawaii was not the only place in the world where people could surf or where surfing could be used to lure investment. In 1907, real estate magnate Henry Huntington cajoled Hawaiian/Irish surfer George Freeth, already in southern California promoting Hawaiian tourism, to put on a surfing demonstration at Redondo Beach California (Marcus, 2009; Lawler, 2011; Westwick & Neushul, 2013). Huntington paid Freeth to do this because he wanted to sell real estate and increase commuter traffic (he owned the railway) to his land holdings. He advertised Freeth as the man who could walk on water and used the event to promote the LA-Redondo Rail Line
as part of a campaign to outcompete Venice beach development for the growing California coastal visitation and settlement markets (Westwick & Neushul, 2013). It was said that “hundreds of Los Angeles residents took the Red Car southwest to its Redondo terminus, disembarked, and stood in the sand to watch Freeth give surfing demonstrations” (Warshaw, 1997: 25). Just as when Hawaiians encountered the invention of surfing in the 5th century, if exposure to surfing did not resonate with the people viewing these demonstrations in California, the idea would have died and the technology would have never entered social significance in the U.S. But for many who came to watch Freeth surf, simply watching from the shore was not going to cut it. They wanted to try it for themselves.

Small colonies of surfers were said to have popped up immediately following the Freeth demonstrations in nearby beach towns (Warshaw, 1997). Surfing caught on in California because the environment produced consistent waves favorable to surfing and because surfing appealed socially to a certain segment of the population pre-war era. I argue therefore that TES factors can explain the creation of the early surf SES in California. Surfing caught on in California after exposure to surfing demonstrations (introduction of surfing technology) because geological and climatic conditions created quality consistent surf (environment) and there was a young middle class population with
free time and swimming ability struggling to cope with the alienating effects of cultural modernity (Society).  

2.4 The Birth of Surf Scarcity and the Introduction of Localism, Escapism, and the Push for Technological Advances in Surfing

According to Irwin (1973), one of the first social theorists to discuss surfers as comprising a subculture or ‘scene,’ the modern surf era was really born following WWII in the early 1950s. Prior to 1950, surfers hung out in isolated coastal pockets and used board technologies that were not very different from the ancient Hawaiians. They may have used different trees as the base material, trees indigenous to the California coast such as Redwoods and Balsa, but having a surfboard and keeping it in working order prior to 1950 required intimate knowledge of how to create a board from natural materials, or a close relationship with someone who did. These long and heavy boards, weighing more than 100lbs, were only suitable for certain waves, waves that rolled in slowly and broke in predictable pattern, which allowed for long rides such as point breaks. This meant that certain geographic features were required to draw communities

12 I must note that in Australia, the UK and many other places around the world surfing also caught on following surf demonstrations from Hawaiian surf and lifesaving ambassadors, each case with its own respective nuances.

13 This is a condition where waves break off of a point of land that juts out into the ocean and then the wave energy refracts into a bay (as pictured in figure 1.6). With the right swell and wind direction these waves typically break in predictable direction and speed and allow longer rides than other types of near shore waves.
of surfers to the particular areas that provided these characteristics. Malibu and San Onofre California were perhaps the most well-known surfing outposts of this time.

Surfing was the core activity for groups of Southern Californians that wished to live in a way that represented a way of life with a slower pace, a life closer to nature, free from mechanization, responsibilities, commitments and drudgery (Irwin, 1973). Holmes said of this early surf era that, “if you were a committed surfer, you didn’t work, you weren’t a citizen, you hung out at the beach all day and speared fished for dinner. You pried abalone off rocks and slept on the sand” (quoted in Kolter, 2006). During the depression, surfers were living a life of abundance on the coastline, which juxtaposed the circumstances in the cities characterized by breadlines and massive unemployment. The surfer could find work running booze, as fishing guides, or selling fish to fancy restaurants and ate plentifully from their surroundings at a time when those who bought into post WWI consumerism were struggling for survival. This is why Lawer (2011) says there was a pay-off to not buying into the bourgeois materialism and this was portrayed in the media at the time through the image of the surfer. Surfing represented a lifestyle that was very different from the conventional one at the time, which threatened by economic depression and war. There was no such thing as scarcity in surfing from the 1900s until after WWII and the social and environmental circumstances during this half-century selected for only small fringe groups of surfers concentrated at remote outposts with certain geological features. At this time, surfing was not about one man and his wave, it wasn’t about dominating or using the wave; it was about friends sharing and moving with the rolling ocean. It was about the glide, not the cutback or the air. E.J
Oshier, a frequent Malibu surfer in the 1930s said, “the rest of us believed nobody had any claim to the wave they were on. We’d have five or six guys on one wave and the more we had, the more fun it was. We’d holler back and forth, talk and ride together” (Rensin, 2008:38). What Oshier describes is similar to the scene depicted by Ellis late in the 17th century, with many people sharing waves and enjoying the surf together (see figure 2.2). As we will see, this is very different to the current surf situation were solitude and wave domination are the most fervent surfer desires and surfers have established a code that requires one surfer ride a wave at a time.

The point is that surfing evolves differently when there are only a few people doing it in isolated regions than when more people begin to seek out the activity that was glorified by the small groups of people representing the activity to the outside world. During the Wars, surfing was idolized in the media as something counter to the prevailing social structure rife with war and depression (Lawler, 2011). To be fair, the early Western surfers in the US were very dedicated and committed to the activity and were living a very different lifestyle than most suburbanites, so this glorification I speak of mustn’t be looked at as without base or solely profit driven. What is pertinent here is that within the overarching industrializing, consumerist, modern social structure, the uniqueness embodied in surfing was selected for as a way to sell magazines, books, and eventually surf equipment and vacations to those seeking identity in a world where identity was becoming unhinged from previous cultural, religious, and labor bases (Bellah, 1996).
As the depression era faded, mass consumption was unhinged in post WWII prosperity. At this time, personal savings accounts in the US totaled $120 billion (Nye, 1998). The glorification of surfing emanating from the few who gained by representing surfing as an oppositional lifestyle appealed to the soldiers returning from war and this placed pressure on the surf culture. A cycle began – as more people desired participation there was more of an incentive for representations of surfing, more representations in turn led to more desired participation. In this process, scarcity essentially infiltrated surfing as the era of commodification began. Surfing culture was beginning to become split between those who wanted to sell surfing and those who wanted to continue surfing for its own sake, though the difference was not always clearly delineated.

After *Gidget: The Little Girl with Big Ideas* novel was published in 1957 and then the Gidget motion picture was released in 1959, the somewhat utopian frontier subculture (Lechtman et al, 1977) that emerged in the early 20th century at the beaches of Malibu and San Onofre became more intriguing and more and more people desired access. To illustrate this transition empirically, Irwin (1973:144) says that in 1950 there were approximately 1,000 surfers and in 1960, one year following the release of the Gidget film, there were 20,000 surfers. From 1960 to 1964, the surfing population jumped from 20,000 to 150,000 (Irwin, 1973:144) a growth rate of 65 percent per annum. The film dates are used here as a chronological marker more so than the cause of the growing participation in surfing. Westwick and Neushul (2013) suggest that Gidget’s popularity resulted from the growing interest in surfing already happening for many other interconnected reasons. Therefore, while many suggest Gidget caused a surge in surf
participation, this work maintains that the novel and movie were just as much a consequence as a cause of the growing surf population at the time. The motion picture was just one of many inputs that comprised the coevolving TES situation at the time.

Regardless, this period drove a wedge in the once tight nit surf culture, the TES relationships that led to the declining significance in the early Hawaiian surf culture basically took off in reverse. Social pressures for new lifestyles, identities, and leisure outlets, coupled with the increasing stock of glorified and idealized representations of surfing (also a function of these societal desires) would not allow for a few small pockets of surfers to remain nestled in isolated surf enclaves. With the return of many Americans from war during the second half of the 20th century, pressure was mounting on the small coastal surfing communities in California. While many Americans had their course set for post war prosperity and the American Dream of having a wife, a house with a yard, 2.5 kids and a dog, surfers sought something outside of that, or at least a site of refuge from the pressures associated with amassing buying power and taking place in the building consumerist complex (Lawler, 2011).

The period following Gidget, as mentioned, was very contentious. Those already established in the surfing culture were forced to decide whether to push further off into the fringes so as to remain ‘authentic,’ unique, counterculture, in harmony with nature and uncommodified, or to profit from the growing interest in the activity they had dedicated themselves to learning and participating. The poles were not so clearly delineated between those who sought to profit from surfing and those who sought to remain authentic, nor is it to this day, and this contradiction remains central to
understanding surf culture (Ford & Brown, 2005). In 1960 for example, one year following the release of the Gidget motion picture, the first surf specific publication, *The Surfer*, went to print. This was emblematic of attempts to make a living off of surfing, but trying to do so in a way that allowed surfers to represent surfing to other surfers. In many cases, the surfers beginning to sell surf representations and products were not evil capitalist producers “playing the pimp’ between consumers and their sense of need (Harvey, 1990), but where humans trying to maintain the lifestyle. Most just wanted to earn a living while creating products that could make new surfing maneuvers possible and also make surfing more convenient for not only outsiders, but themselves.

Most importantly for the purposes of this work, however, during this phase following WWII, three of the key pillars in modern surfing in a sense began: (1) localism, (2) escapism, and (3) the push for technological improvements in surfing culture. Localism, typically understood as any attempt by surfers living in an area to try to discourage new surfers with destruction and violence (Ford & Brown 2006; Scott, 2003; Young, 2000). Escapism, known as the quest to find new places to surf with quality waves and without the newly forming crowds inundating the California coast. And lastly, the push for technological improvements to sell goods to make the activity more accessible to the people who wanted to buy in. The third pillar will be the topic of the next section to highlight how TES changes impacted surfing and gave rise to the DWST SES.
2.4.1 Technological Advancement – Expanding the Frontiers

There were legal and cultural protections against technological advance in the institutionalized ancient Hawaiian surf society. The post war consumerist society in the United States had no such protections, in fact, society was becoming fashioned around the idea of unencumbered technological progress as means to perpetual economic growth. This section will specifically look at the foam/fiberglass surfboard, the leash, the wetsuit, and surf forecasting to illustrate how technological advance increased participation in surfing and opened up new areas for surfing.

Many surfboards shapers in the Cold War era began to incorporate wartime defense technologies in to surfboard design. Westwick and Neushul (2013) make a case that airplane wing designs and materials coming out of Caltech laboratories seeped in to surfboard manufacturing in California in a very underappreciated and significant way. One of the most noteworthy applications of war technology to surfing was the introduction of polystyrene foam/fiberglass boards incased in polyester resin (Westwick & Neushul, 2013). The foam/fiberglass surfboard changed surfing entirely. Foam surfboards introduced synthetic materials, made surfboards smaller and lighter, more buoyant, water tight, and also made boards more affordable and easier to mass produce. In the 1960s and 1970s surf board manufacturing warehouses were springing up in Hawaii and California to try and keep pace with the demand for surfboards. Small scale craft manufacturing was being supplanted by larger manufacturing processes in an attempt to reap the benefits associated with economies of scale. During this time, surfboards were showing up in department stores such as Longs, Woolworths, and Sears.
(Clark, 2011) which helped to get the equipment necessary to surf in the hands of more people. Lighter boards also meant more people could more easily transport their boards from wherever they hailed from to the water. Many make the case that lighter surfboards were a major factor contributing to the rise of the female surfing population that really took off at this time and continues today (Comer, 2010; Westwick & Neushul, 2013). People no longer needed special automobiles or a safe place to store their large boards on the beach, they could easily transport their boards alone. The addition of fins to the surfboard also made boards easier to control and allowed for new maneuvers. These new maneuvers, like the cut-back and barrel ride, also helped to usher in the individualistic era of surfing that began the one-person-per-wave ethos that now dominates surf culture.

Lighter foam/fiberglass boards also facilitated the creation of the leg-rope, or what is also known as the leash. When boards weighed more than 100lbs, it was not practical for surfers to tether themselves to their surfboards. The heavy board would have carried a surfer along with it or perhaps pulled their leg out of socket. When surfers fell from heavy wooden boards, they had to swim long distances to retrieve their boards, this required surfers to be excellent free swimmers and increased the danger involved with the activity. The leash was a way to keep the surfboard close to a surfer after a fall. When you fall off of a board wearing a leash you do not have to swim after it or worry about the board banging up against rocks on shore because it is right next to you when you recover, ready to serve as a floatation device. At least in theory, most surfers know firsthand that they do not always work, they break off and sometimes send the board flying back at your face when you fall. As one of the leash innovators, Jack O’Neil
knows personally because his first suction cup pilot leash ripped off of his board in a
wipeout and the leash flew back at his face causing him to lose sight in one of his eyes
and forced him to wear an eye patch for the rest of his life (Moore, 2010; Westwick &
Neushul, 2013). Despite the few initial design flaws and the occasional issues that still
occur, the leash is a very positive and popular piece of surf safety equipment not only for
the surfer’s personal safety, but also for the preservation of the expensive equipment. In
short, the leg rope made it easier and less risky for more people to begin surfing, as well as,
gave surf companies something else to sell to the growing surf population.

The creation of rubber and neoprene wetsuits were also said to have benefited from naval research funds to build equipment that would allow for cold water diving (Moore, 2010). This gear facilitated the adoption of surfing to colder climates further north in California, such as Santa Cruz and San Francisco, but also made surfing in Southern California’s chilly water more comfortable and desirable. This development also made year-round surfing more attainable and allowed surfing to spread to some of the coldest most peculiar corners of the world (Moore, 2010). As someone who lives and surfs predominately on the East Coast of the United States, I can attest that serious year round surfing would be nearly impossible without this technology, and this can be said for many other regions with large surf populations such as Australia, France, the UK, Japan, Peru, Canada, and Chile, to name a few. The wetsuit cannot be underestimated as a military technology adopted to surfing, which facilitated the expansion of the surf world to once unimaginable places.
Surf forecasting technology, as with all other important surf technologies mentioned here can also be tied to the military industrial complex. Surfers, I am sure have always desired better and more precise knowledge about future wave heights and tides, but I am not sure the extent to which we now have this information dialed would ever have been possible without the military needing and funding the installation of buoys and bathometric mapping all over the world. While surfers are perpetually looking for large surf, the military, after a series of botched amphibious strikes on coastal regions in WWI (most notably the Dardanelles campaign) decided they needed a way to avoid big surf and low tides during WWII invasions by sea (Westwick & Neushul, 2013). In order to establish the criteria for favorable sea conditions for invasions, naval researchers developed a method for connecting wave data at a particular beach to weather data thousands of miles across the ocean (Westwick & Neushul, 2013). They then connected this weather and swell information with the way waves broke on a particular beach by factoring in the bottom contours and topography of the area in question. Had it not been for this new aptitude for predicting wave conditions on beaches at invasion sites, the D-day invasion of Normandy would have occurred one day earlier than June 6th 1944 and in what would have proved to be more treacherous wave conditions (Westwick & Neushul, 2013). This was just one of many invasions documented to have employed this new found acumen for surf forecasting.

The aggregation of this weather, swell, and near shore bathymetry information helped surfers to find new areas for surfing, as well as, changed the fundamental understanding of what waves are, where they come from, and how they could be
measured. This will be discussed in much more detail in the coming chapters, but is mentioned here to round out the discussion on the marriage between military defense technologies and surfing, as well as, the coevolutionary nature of TES interrelations to a comprehensive understanding of not only surf history, but the future of surfing.

While all of the innovations discussed in this section were in some respects beneficiaries of military research, their adoption to surfing were causes and consequences of more people wanting to give the activity a try. New surf technologies were selected within the social system that accompanied post war prosperity, a system that was becoming increasingly fashioned and geared towards leisure, consumption and profits – and technological advance as a conduit for perpetuating all three. New technologies became new things to buy, the faster they were improved upon the more of them producers could sell. New technologies also changed what environments were conducive to surfing. With lighter surfboards, leashes, and wetsuits more people could begin to surf in more places. With shorter and lighter boards, people did not have to only surf at slow rolling point breaks, beach breaks became suitable for surfing. With wetsuits and leashes, new climates could be surfed more comfortably and safely.

The TES inter-relationships changed as developments and changes in one, selected for changes in the others. In this narrative, western consumerist society selected for representations of surfing and the image of the surfer intrigued people at a time when people were searching for new ways to derive their identities through consumption and leisure, rather than through work and social class. New technologies helped to make surfing attainable for more people, albeit through consuming products, rather than having
the knowledge passed on to them from other people in many cases. These new technologies in turn made new environments possible to surf. More people surfing in more places changed the surfing environment and also selected for new representations of surfing. The surfer image was no longer novel in its own right, so novelty was created by showing more people surfing in even more far off places, surfing bigger waves, and doing more radical maneuvers.

What is interesting for this paper, at the time in question (post WWII to the early 1990s), there were only a small group of ‘cultural intermediaries’ (Bourdieu, 1984; Lyon, 2000) representing surfing to surfers. These people had an interest in keeping their representations novel and as long as there were new places (environments) to film that had not been surfed before or that were seen as secrets, they could continue to maintain that perfect, un-crowded, warm waves existed somewhere. This was something that was contrived, magazine and surf videos showed people surfing, but would often not disclose the precise location or outright lie about where they were, or re-discover the same surf place under different names (Calish, 1985). As the surf frontier begins to close, these representations gets harder to sell, and with new tools of representation (social media) more people have an outlet to represent places they visit. This in turn selects for new representations of surfing and new products to consume, this idea will be expanded on in the coming chapters.

To close out this chapter, it was not so much the inventions discussed in-and-of-themselves that changed the face of surfing, it was the way in which they spread and the new TES interactions they facilitated. As for the way these technologies spread, the
infusion of capital into the production of surf apparel and equipment led to many companies entering the market. The profit motive led many companies to try to advance these technologies, drive down costs, and also to begin to differentiate brands through advertising and marketing. In this drive to differentiate products, surf companies began to sponsor talented surfers which helped lead to the professionalization of the sport (Kampion, 2003; Stranger, 2011) and the creation of new perfect wave imagery (Ponting, 2008). The irony involved here was that much of the imagery chosen to sell surf products in marketing campaigns was borrowed from the mystique of those who fled to surf in territories that were not experiencing such an industrialized/commodified transition. The ‘soul’ surfers, who escaped to dedicate themselves to surfing un-crowded waves in warm water, became the key image evoked in the marketing of corporate surf brands (Lawler, 2011). These companies sought out to sponsor the search for new wave discoveries and collected images of the surfers they paid to surf in these new locations as a way to emulate what the soul surfers were doing and to capture and commodify this image.

What all this helps to illustrate is just how DWST was born from co-evolving TES interrelationships, it was not inevitable. Without funding pouring in to military research, California may not have been populated with the young people, with leisure time and swimming ability that became the first surfers in the U.S., nor could surf technologies have advanced and got in the hands of as many people as they eventually did. A growing surf population tantalized by the images of people surfing far off waves in films and magazines may also not have formed in the U.S. without technological and
societal changes and all of these factors contributed to altering the surfing environment. In short, without many of these technologies (smaller/lighter boards, leashes, wetsuits, surf forecasting, and surf films) and the growing prioritization of leisure in society, surfing would not have come to take place in as many places as it now does, and this paper concerning DWST surf tourism would have never had a reason to be created.

The next chapter will discuss the common neo-colonial exploitative DWST narrative with the infusion of SES terminology and information, in order to explain the failure, or lack of the creation of governance systems to allocate wave resources effectively in the pre-internet surf era. This involves starting out with a discussion of how the TES interrelationships in the pre-internet surf era created the conditions for the overuse of wave resources within the DWST resource system. It will then be possible to discuss potential avenues opening up for new relationship between users and resource units within the DWST SES as a new governance infrastructure emerges with new technological inputs.
Chapter 3

CONSUMING SURF BREAKS

3.1 Introduction: Postmodernism and the Perfect Wave

Chapter 3 provides an enhanced version of the neo-colonial surf tourism narrative (also referred to as the consuming surf-breaks discourse) most often argued to explain the frequent exploitation and historic socio/environmental challenges associated with DWST in current literature. It is ‘enhanced,’ because the SES and the TES frameworks will add breadth, new language, and organization to this discussion. The goal is to show that the interaction between users and CPR units (in this case ocean waves) typically led to unsustainable outcomes not because governance was non-existent, but because the governance strategies employed by privileged resource users in the pre-internet surf travel era facilitated exploitation and overuse. This was not inevitable as often argued, resource exploitation and overuse resulted and continue to result from SES variable interactions nested within the larger TES framework.
Martin and Assenov (2012: 272) suggest that surf tourism research is dominated by a “discussion on the use and success of the surf imagery as a psychodynamic construct, including the chimera of paradise as a marking device and the commodification of ‘surfing space’ alongside the impacts that surfers’ have on host communities, particularly in foreign countries.” Many surf tourism scholars operate in this space (Buckley, 2002a, 2002b, 2003, 2006; Canniford, 2005; Fluker & Hageman, 2006; Ford & Brown, 2006; Hageman, 2004, 2006; Ormrod, 2005; Persoon, 2003; Ponting, 2001, 2002, 2006; Ponting et al., 2005; Tantamjarik, 2004). Understanding the consuming surf-breaks concept requires analyzing how and why the image of the perfect wave was created and maintained in the era following WWII. This requires careful discussion of the tripartite marketing synergy that developed between the surf media, surf-wear manufactures, and surf tour operators (Ponting, 2009).

3.1.1 Postmodernism — Riding the Currents of Change

Postmodernism, as Harvey (1989) discusses it, is in part, a cultural consequence of a production and consumption process changing to overcome the crisis of over-accumulation\(^{14}\) through a shift from Fordism to flexible accumulation. This basically means that in the post war era, there was an immediate demand for reconstruction investments, as well as, cars, commercial airplanes, and large appliances, things that took advantage of the military model of factory production. These things were expensive and often required financing, but you could only sell so many large durable goods with long

\(^{14}\) Put most simply, the crisis of over-accumulation is the phenomena that arise as firms cut labor to trim production costs in an attempt to enhance profits. This in turn threatens the ability of the workforce to purchase the products being sold on the market place.
life-spans, especially when production cost were constantly being cut through the substitution of automation for labor. To maintain economic growth, which is required for companies to bring in profits and for consumers to have the means to pay for new products and services, things had to be purchased at ever increasing rates. New products and services had to become purchasable commodities and new places needed to be opened up and brought in to the global marketplace for the perpetuation of economic growth. The main vehicle for bringing new products and services to the marketplace was to tie meaning, or symbolic value to these products. In other words, through consumption, within the flexible accumulation paradigm, people had to be able to seek out new lifestyles through what the products they purchased symbolized. Lyon (2000: 79) describes this as an emerging postmodern situation, one where “people find their niches in society, their means of societal integration, and their identities, through consuming.” To expand the marketplace to areas that once operated outside of the emerging global marketplace, the post war global financial infrastructure, which created the World Bank and IMF, implemented policies and loan programs which tied infrastructural investments in developing countries with liberal market reforms. Tourism has been proscribed by these institutions as a mechanism for fostering increases in foreign capital infusion, export earnings, and economic growth since their creation (Honey, 1999).

Fletcher (2011) discusses how ecotourism meets both functions, or provides ‘fixes’ for the crisis of over-accumulation in two principle ways. First by opening up new places around the world as sites of consumption (spatial fix) and also by creating a
product that costs a great deal of money and is consumed quite rapidly (temporal fix). DWST, in the consuming surf-breaks discourse is a paragon industry for providing these fixes as well. First off, DWST consumption is driven by powerful images of freedom and escape that appeal to human’s most primitive subconscious desires (Lawler, 2011). Furthermore, surf trips are a major part of a surfer’s identity and the more travel a surfer does, the more cultural capital they have (Ford & Brown, 2005; Krause, 2012).

Secondly, because this desire for travel to uncrowded surf destinations is so pervasive in this growing subculture, the process of ‘roving banditry,’ or sequential exploitation, ensures the surf tourism frontier will constantly expand, introducing new remote coastal communities to the global marketplace.

Surfing is argued to be more than a mere ideal which conditions consumptive habits, is also an art form and a lifestyle where intense pleasure can be derived from the intimate interaction of oneness felt when riding challenging waves (Csikszentmihalyi, 1990; Flynn, 1987). In applying semiosis to surfing, Flynn concludes that surfing defies description by any other system. He says surfing is “such a rich field of motion, intentionality, the unity of human moving with natural force, surrounded by a cultural context with historical depth with lots of symbols and signs and colors.” What if not postmodern is the following quote by Tom Blake, one of the pioneer Western surfers in his book Hawaiian surfboard:

I pick a custom or two from each race to use at my convenience. Perhaps it is the Buddhist religion of the Chinese— the Poi eating and surfriding of the Hawaiians – the raw peanut eating of the Filipinos – the happiness, enthusiasm and appreciation with which the Japanese meet their daily needs” (quoted in Lawler, 2011:72).
For the reasons above and many others, Stranger (2011) argues that surfing culture is not only the embodiment of the shift towards a postmodern societal structure, but that it also played a part in ‘postmodernising’ larger society. Suggesting that surfing may have, and continues to, play a part in the greater TES dynamics that situate the DWST resource system. Meaning that the system which created DWST is also changed by the interactions and outcomes within the DWST SES and is also changed through the way in which the DWST SES interacts with other SESs. Stranger (2011) says aestheticization involved with the act of surfing “dismantles the modern artifice exposing our interconnectedness through ecstatic experience rather than rational calculation” (Stranger, 2011: 244). In this sense, surfing culture is seen as postmodern, but not a postmodern where wallowing in the fragmentary currents of change is all that is possible (Harvey, 1990), but where people can be united and grounded by the shared ecstatic experience of riding waves and commune with nature. Shared knowledge of what it feels like to ride a wave connects surfers. It does not need to be explained or articulated, but just embodying what it feels like to ride a wave and experiencing intense enjoyment from the act, bonds surfers in this shared experience.

In this postmodern social setting, anyone can try on the surfer lifestyle through consuming products, such as a packaged surf tour or an all-inclusive surf camp, a T-shirt or slip-on shoes, equipment, magazines, and videos. In this sense, different goods and services associated with surfing can be packaged and sold to pseudo surfers, just the same as they can help bind people in a coherent postmodern community. Both of these
realities exist. Even more important, perhaps, than whether someone is a pseudo surfer or a hardcore surfer, the same imagery is used to market items to each group and everyone in between – this is the image of the perfect wave.

### 3.1.2 The Perfect Wave

Ponting (2009) says that the perfect wave imagery evoked to sell things, not only to surfers and pseudo surfers, but the greater population as well, is based on four symbolic elements: un-crowded waves, compliant friendly locals, a cushioned adventure, and a pristine environment. For those who adopted surfing as a central piece of their identity, the image of the perfect wave conjures up surfing’s Edenic past (Lawler, 2011) – the time before Malibu was ‘ruined’ following the Gidget era or perhaps even further back to when Hawaiians lived a full blown surf society. Perfect wave imagery conjures up deep emotional feelings for a time of more connectedness, a time when surfers knew one another, got along in the water and had fun together. This imagery perhaps appeals to an instinctual human desire to associate the past with greater connectedness. A desire Freud (2010) said derives from a human longing to return the womb, a place emblematic of pre-ego connection to the universe proper (Freud, 2010). As more people started to surf to connect with nature and this pre-ego past, they started to bump in to one another. These crowded conditions led many of those who had been surfing before the crowds to search for new places (changing the resources system) to surf that embodied this Edenic past. The surf media and those who produced surf inspired products for sale had an incentive to represent this search through imagery and the creators of this content became
privileged users with high levels of impact in terms of user interaction and information sharing.

3.2 Pre-Internet Cultural Intermediaries

3.2.1 The Surfer Magazine Case

In 1960, *Surfer Magazine*, was the first magazine published for a surfer audience. Prior to this there were features about surfing published in *National Geographic*, *The New York Times*, and in *Women’s Home Companion*, as well as, many other news outlets geared towards a wider audience. Mainstream surfing accounts had always been mixed between admiration and idolization of surfers and association with the unsavory, such as hot rodders and drug addicts (Kampion, 2003). *Surfer Magazine* (initially called *The Surfer*), however, was the first to target surfers specifically, creating content by surfers for surfers. The *Surfer Magazine* case will highlight surf media practices in the pre-internet surf era before beginning a discussion of the associated developing world impacts.

In *Surfer Magazine*’s early publication years, it was not hard for the magazine to find copy. Established surf locales in Hawaii and California were first covered and images of the usual crowd surfing were displayed. It was said the surfing world at this time revolved around these two suns (Caslish, 1985). Following this phase, Calisch
explains that “surfers wooed photographers and cinematographers to the really good waves in their home-breaks” (1985:87). Groups of surfers that had congregated in other areas such as Australia, New Zealand, South Africa, and France, to name a few, saw exposure in the surf media as validation of their place in the growing surf culture. In this time frame, *Surfer Magazine* was bi-monthly so there was more than enough known content out there to fill six issues annually. Therefore, during this phase, between 1960 and 1969, the magazine was more concerned with deciding which surf locations were worthy of coverage rather than finding new places. This is not to say that there were not ‘discoveries’ but these were not yet contentious.

This began to change around 1969 and in to the early 1970s. After a decade of consciously luring photographers and film crews to surf-spots, many people began associating surf media exposure\(^\text{15}\) with rapid and undesirable change. Hawaiians (and expats surfers who settled in Hawaii) were the first to associate detrimental impacts to their surfing space following the images the cultural intermediaries were creating reaching a growing audience. Hawaiians began beating up Western surfers that showed disrespect, disrupting surf contests, shunning photographers, and started to rail against commercialism and overcrowding (Walker, 2005, 2011; Kampion, 2003; Warshaw, 2004). The early 20\(^\text{th}\) century media representations, stemming from guys like Tom Blake and Alexander Hume Ford, coaxing white surfers to Hawaii began to shift towards a “Haole\(^\text{16}\) go home” ethos (Calisch, 1985). This phase represented the birth of the still

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\(^{15}\) Surf contests were also argued to bring similar exposure to places and draw subsequent crowds.  

\(^{16}\) Haole is a Hawaiian term for white person in Hawaii – typically derogatory.
contentious issue in surf culture between the surf media and the expats/locals who established their lives around surfing warm uncrowded waves – the issue of how much information the surf media ought to be permitted to divulge.

Surf discoveries and travel features were too important for the surf media to abandon following scrutiny. Just as in Berkes’ (2006) roving banditry example, as the wave resource units in Hawaii became overused, the media and surf entrepreneurs branched out to establish industries in new places, essentially exporting the same model of exploitation. Because places with established surf communities were becoming leery of the surf media, two new strategies evolved to maintain the dream of the perfect wave. New surfing areas needed to be found, places with great waves and no one surfing them – and thus no one to complain about how these places were represented and the results of the representation. The other strategy was conspired deception and secrecy by the surf media and Surfer Magazine in particular. This involved outright lying about where the images were taken. The search for the perfect wave continued, therefore, but under different terms. According to Calisch (1985), the early 1970s were marked by continued representation of surf discoveries, but marked the end of telling about it. Deception and misrepresentation, in a sense, became a part of the governance system that emerged at this time to try and keep surfer numbers at a small volume in many developing world surf breaks. Or at least to insure that surf tourists used the infrastructure established by foreign entrepreneurs, which exposes the links between this governance system at this time and the neo-colonial development model mentioned earlier in this chapter.
After a one year hiatus of publishing new discoveries in 1971, the quest continued. To appease the locals who had become paranoid about outside surfers and the surf media, especially the ones who began resorting to localism and territorialism to keep them away, the media began to frequently utilize the method of providing false names of the places they visited or by providing images, but leaving the location unnamed. This ensured the magazines and film makers would have the right to return and capture more images. Calisch said that:

[T]here were certain advantages to the magazines in not identifying them [surf spots] apart from keeping up with the trends of the time and keeping the insurance premiums in line for their photographers and writers. More articles could be published that carried the mystique of unknown surf if, each time, the place was not identified. So the search continued, allowing by now for some occasional backtracking (Calisch, 1985:89).

Examples of this are abound, spanning from this time period until today. Calisch (1985) sites an example from a 1972 Surfer Magazine publication that featured many images of professional surfers at a surf-break called Acid Drop in Kauai, Hawaii. At the time, these photographs were released as part of a feature story that discussed the location of the shoot as “a tiny island east of Hawaii in the heart of the Pacific” (Calisch: 1985:89). Outright intentional deception was not the only tactic, oftentimes, photos were shown and only the general geographic location was given. In 1975, a popular spread of images shot in Senegal, Liberia, and Ghana were said to be rather ambiguously from West Africa. Both of these tactics ensured the audience could continue to see images of people surfing crystal blue waves, alone in boardshorts, with a jungle backdrop and dark skinned compliant locals. The precise whereabouts were continually concealed so
reporters and photographers would be allowed back to rediscover these places over and over again and maintain the myth that the perfect wave was out there somewhere. Just like El Dorado for the Spanish Conquistadors, the perfect wave was always somewhere over the next hill or through the next jungle (Ormrod, 2007). The media had to ensure this to keep relevant, through any means necessary.

Emblematic of these strategies was the Larry Yates interview published in May of 1974. The cover of the magazine was named after this feature titled, the “Forgotten Island of Santosha,” which was named after the surf movie Yates had filmed and was promoting in the magazine. George (2005) said that this “feature on the Indian Ocean island of Mauritius redefined the Myth of Perfection, triggering a restless search for Nirvana that continues to this day” (62). The name ‘Santosha’ was chosen so as to not give the actual location of Mauritius at the time and because it suggests an Occam’s razor approach to contentment. Insights into the perfect wave can be illustrated in a passage from the interview associated with the article where Yates describes living in Mauritius while creating the surf film:

I lived in a thatched, tin roof house on the tip of the bay. It had a bathroom and a kitchen, very native and functional. I could walk out my front gate right to the edge of the water. When the surf came up, my room on the bay would just echo and sing with the sound of the waves. As a group, we had three different houses. A house for the photographers so they could work in peace, and so we could live in peace. Rent was very cheap. We all saw each other every day to go surfing and do other things. The beaches there are beautiful, untouched, pure white coral sand. You could find shells the size of your forearm. It was like you’d imagine Hawaii to have been 50 years ago……But here on Santosha, there seems no measure for time. Toward the end of that warm winter season, we experienced a swell that defies description with mere words. She showed us her full beauty and intensity. We felt we could not ask for more…..Santosha really isn’t a place; it’s
a word. It just has a meaning. It’s a state of mind. A forgotten state of mind (Quoted in George, 2005:62).

This brief clip from the interview reveals a great deal about what the perfect wave was at the time – it was a pristine beach, with a simple and cheap existence, with great waves and, of course, suggested a harkening back to the past. This excerpt also shows us the importance of evoking this imagery to sell magazines and films – this was the cover story of the May *Surfer Magazine* edition published in 1974. Although a simple life on the beach in the middle of the Indian Ocean was evoked, this life was tied to the profitable representations of this experience back home.

The film, “the Golden Pig,” was made to critique the changes surf tourism has wrought in Lagundi Bay, a surf break on the island of Nais, Indonesia. Kevin Lovett and John Giesel, the first people to surf Lagundi, directly mentioned being inspired by the Forgotten Island of Santosha *Surfer Magazine* piece and film to leave home and seek out perfect waves no one had ever surfed before. They found what they were looking for on Nais, but 25 years later, Lovett said he doubted whether their discovery was for the better of the people living on the island. *The Golden Pig* video shows prostitution, over-development, and over reliance on surf-tourism hurting other traditional industries, causing intense localism, and declining traditional values. And this small island in Indonesia is just one of the many examples of surf media coverage inspiring searches to undiscovered surfing grounds and the potential consequences of this phenomena.

While images of surfing waves in Tahiti, the Philippines, Morocco, West Africa, Indonesia, Mauritius and many others were accessible to anyone who picked up a copy of *Surfer Magazine*, the reality was that only a select few people were actually surfing many of these places in the 1970s. One group was the hardcore surfers who dedicated their lives to being out in front of this expansion. This group came to be called the feral surfers because they traveled cheaply and lived in poverty. They used local infrastructure and services and often even contracted tropical diseases (Barilotti, 2004). The other group being the media and apparel companies who financed their best surfers to travel out, discover, and be filmed surfing these waves as fodder for marketing campaigns. The latter became the cultural intermediaries who possessed creative license on representing these places – often evoking the ideologies and travel patterns of the former group. They
decided what to convey and what not to, and as the Calisch (1985) article indicates, for various reasons, they decided to show the four symbolic elements that Ponting (2009) found in his analysis of the surf media, over and over again. The locations and names of places depicted were intentionally fabricated, so to were the relationships between the surfers and the people living where the waves were. The extreme poverty and other issues, not to mention civil wars, were veiled to perpetuate the perfect wave myth and the purposes it served. The perfect wave imagery was thus disembedded from geographical and cultural context.

Just as wartime and depression era surf imagery helped to prop up the post war surf boom, the decade of the illusive, fetishized, and secret representations of the perfect wave in the 1970s fed the surf travel boom of the 1980s, which has yet to show signs of slowing down. In the 1980s, readers began to express desire for more truthful information and at the same time many traveling surfers were evolving in to expat surf tourism entrepreneurs at various locations around the world. This added new cultural intermediaries to the fray, but these entrepreneurs had an incentive to perpetuate the same imagery. The perfect wave was changing from something that could be seen in magazines and surf videos, to an experience that could be purchased – in many respects, the birth of DWST as an industry with global reach. These entrepreneurs essentially sought to offer packaged surf vacations that also insulated tourist from realities outside of the warm water and amazing surf. These entrepreneurs obviously needed surfers to visit in order to make their businesses viable, but they did not want too many visitors to ruin the experience of the perfect wave. The irony being that expatriates who made their
home in a faraway, foreign land and set up a livelihood that depended on new visitors also cursed the presence of new comers to ‘their’ spot (Calisch, 1985). These expats also cursed and threatened anyone who would reveal the precise whereabouts of the waves they serviced, which could jeopardize their ability to control the market and profit from access. After a brief discussion of the Endless Summer (1964) film, the consequence of how fetishized media representations and the budding surf tourism industry changed the environmental and cultural settings in many developing world surf destinations will become the focus.

3.2.2 The Endless Summer: A Precursor to Surf Porn

The image of the perfect wave is typically attributed to the creation and dissemination of the Bruce Brown’s documentary, the Endless Summer: in search of the perfect wave (1964). Ponting (2008) says that this film, along with the surf specific publications, as mentioned above in the Surfer Magazine case, which predated the film by a few years, hugely impacted the creation and expansion of surf culture and these incipient acts helps to spread the norms and expected conduct for the surf community. Some say it is the images disseminated in videos such as The Endless Summer and surf specific media publications which helped to form a surf habitus17 (Ford & Brown, 2006; Krause, 2007, 2012) – or a sort of indoctrinated code that surfers came to follow, which

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17 Ford and Brown (2006) and Krause (2007) adopts the idea of Habitus to describe surf culture from Bordieu’s the Logic of Practice (1990)
dictated what they bought and wore, where they traveled and what they did as tourists (this will be taken up in the next section). What seemed to appeal most to people watching these films and reading these magazines were images of people surfing far off waves no-one had ever surfed before. In the early western adoption of surfing, surfing in-and-of-itself was an escape. Malibu was far enough away from societies repressive demands in the early 20th century, but with this film, the frontier was expanding while local conditions were crowding.

While some surfers in Malibu where setting up surf shops and permanent businesses to cater the growing crowd of surfers in California, many of the surf idealist began to try and move the frontier to other areas where surfers could relive the utopian ideals by re-isolating themselves. Irwin (1973) highlighted the importance of surf-trip isolationism to articulating subcultural ideals and outlining the surfer habitus (though he did not use those exact words). Come the mid 1960’s Surfing was not enough, it had to be far away. For the perfect wave image to work, surfing in the domestic sense had to first be accepted as ruined. Leroy Grannis, said, “The first time I surfed in Malibu, in 1936, there was no one else out. The water was clean as a bell. When I got out of the service in September 1945, I went up to Malibu again with a friend. I saw eight to ten guys in the water. I turned to my buddy and went, “this place is ruined” (Rensin, 2007:59). In this sense, surfing as an expression of individuality and ecological/pre-ego connectedness was being threatened by more people wanting to surf and achieve this sensation. It is this misanthropic tendency emerging at this time, which created the social conditions that selected for idealized media representations of surfing.
This was coming at a time when surfing was increasing in popularity and the solo surf images helped to engrain the notion that the ultimate experience in surfing was to ride clean waves that break for kilometers as far away from civilizations complexities as possible, with as few people as possible. The Endless Summer did not only suggest this idea, it gave what was set up as concrete visual representation of this possibility. The discovery of Cape St. Francis depicted in the Endless Summer “was essentially the collective realization that somewhere out there in the former colonies were scores of heathen virgin Malibus just waiting to be converted and put to work by some deserving white surfing colonist” (Barilotti, 2002).

The Cape St. Francis scene in the film really drives home what was to be called the new image of the perfect wave. First off, the wave was hard to get to and required adventure. The scene in the film opens with the three surfers trudging through three miles of sand dunes carrying 10ft longboards in the blistering sun. They were hot, sweaty, and halfway across the world. Secondly, there was an element of surprise. They were simply taking a chance at finding surf, but had no idea what they would find on the other side of the sand mountains they were traversing on foot. When they first crest the dunes and had a view of the surf it was clear that they found what Brown called the “perfect wave”. The wave was head-high and provided rides that could not fit on one role of film. Surfers could be in the barrel for 45 seconds. The waves represented a virgin like conquest. The water was warm and Brown suggested the waves had been breaking like this for centuries, but they were the first souls to ride them. And lastly, the lore suggested that the waves could get even better. Brown said they discovered a place
that was better than Malibu or Rincon, every day, with offshore winds 300 days out of the year. This claim was corroborated by a fisherman he suggested having spoken to.

This became every surfer’s dream – and if it wasn’t before the film, it was after – the Holy Grail. Ponting (2008) quotes George to suggest the broader cultural impacts and the conceptual shift that this film’s depiction of the Cape St. Francis discovery precipitated:

Bruce Brown’s landmark film...introduced a powerful new ethic..This was the idea – The very conception – of a “perfect” wave. In Endless Summer’s concise, supremely eloquent Cape St. Francis sequence, and ulterior motivation force took root, a new ethic that within seven years would completely reshape surfing’s map. Whereas before the thing was simply to go, now there was a definitive goal, an El Dorado. By 1970, surfers weren’t just looking, but looking for something better: a quest for perfection (George, quoted in Ponting 2008: 48).

This film clip was the epiphany that ignited the explosion of similar representation in surf magazines and other videos. Taken together, the perfect wave imagery fueled a growing interest in surf travel that would come to shape the sport for the rest of the millennium (Kampion, 2003: 98). Surfing’s gold rush had begun, many serious surfers for various reasons, sought out to make their own discoveries and to find their own unique rewards. The reward was typically solo time surfing epic waves followed by profits for creating the initial images, ideas, and infrastructure – essentially showing others the way.

The great irony is that the surf quest that many a subsequent quest was founded upon was itself a farce – it was built on a myth that begat a myth (Kotler 2006). Surf porn, is a term that can be used to relate the imagery evoked in many surf media outlets
to depicted fetishized representations of the developing world. All the material that surfers lusted after was trumped up and the real social realities were left out. Much of the surf tourism industry mimicked this by creating brothels in a sense. Surf tourism was built around providing surfers with the symbolic elements they came to select for while walling out on the ground realities that did not corroborate the fantasy. This shows the ability of marketers to base an industry on a fetishized commodity that concealed the social relations of those that have contributed to the production of the commodity (Mowforth & Munt, 1998). Warshaw (2008) calls this the alchemy of surf travel and comments in detail about how fictitious the founding imagery presented in *the Endless Summer* really was:

> [s]etting the factual record straight, the prevailing wind at Cape St. Francis is not offshore and a surfer would be more likely to see a troupe of hula dancers gyrate across the Cape than a set of clean 15ft waves peeling off for 7 miles. Brown’s 300 good surf days a year claim was overstated by about 285 days. He relied on an even higher degree of poetic license to create the dune filled discovery fantasy…. A quick walk up the beach led them to Cape St. Francis, where they filmed for 90 minutes until the wind and tide changed and the surf quit. The next day Brown staged the famous march-for-the-cameras across the dunes. The day after they were on the road” (43).

Not only were the waves that were filmed the day the perfect wave was said to be found an anomaly, but the interactions with local people in other places depicted in the film, such as Ghana, lacked cultural sensitivity. Ponting (2007) suggests that the film portrayed a friendly yet condescending tone with the local communities in Africa and South America and Barilotti (2002) said that the film “set the paradigm early of surfers as goofball neo-colonialists.” The white surfers in the film essentially were celebrities and
the dark locals were happy to fetch their surfboards after they had fallen off and carry their equipment around. The point being that cultural intermediaries such as magazine staff and film crews contrived the image of the perfect wave to sell goods and services, and this image was based on a fetishized reality of the places they were representing. They may not have intended to fuel a surf tourism industry, but history shows it to be a consequence.

3.3 Consuming Surf-Breaks in the Developing World….Before Surfing the Net

3.3.1 Deflowering Indonesia

The images constructed in the Endless Summer and Surfer Magazine could be likened to pornography. They depict fetishized images that veiled the reality of what was going on in the places shown. While the famous Cape St Francis scene from the Endless Summer has long since been shown to be a cinematic sleight of hand (Warshaw, 2004; Ponting, 2009; Westwick & Neushul, 2013) the dream and quest for the perfect wave continued – albeit in a business class sheltered version (Ponting, 2009). Cronly (1983: 100), in Ponting (2008), is quoted as saying that there was a “collusion of sorts between the magazines and manufactures…..the magazines and movies stimulated the desire and need” for surf tourism in the developing world, and the industries provided the materials to satisfy it.
One of the first areas to be effectively inundated with an institutionalized surf tourism industry based on this imagery was Uluwatu, on the island of Bali, Indonesia. A new conglomerate was formed in the process. Surf media and apparel advertisers financed ‘the discovery.’ They then shot a film depicting the deflowering of the virgin waves. Following this, the area was marketed by tourism operators to be a wave riding paradise, with beautiful local princesses bathing in the vicinity, cheap lodging and delicious food, and guaranteed surf solitude in the highest quality waves available. This was essentially the beginning of retail package deals tailored for surfers being bundled and sold. The film and advertisements strictly focused on Bali’s ability to deliver the essential elements of the perfect wave fantasy. The on-the-ground realities of Indonesia that could not be used to add to the place’s lore were intentionally dispelled and omitted.

Ponting says (2008: 52), “[t]hus the interpretation of local people, place, and politics does not feature as highly in specialist surfing media as the interpretation of the liminal experience of wave riding, specific surfing conditions and the traveling surfer’s lifestyle.”

Despite Bali’s ability to remain an isolated south sea island, somehow surviving culturally intact after 400 years of Dutch colonial rule, two world wars, and a military coup; all it took was one surf film to “show perfect green barrels, flower bedizened festivals and sultry Balinese maidens porting water on their heads down the trail to Uluwatu” to place Bali on “a knifes edge of change, poised for rapid irreversible progress” (Barilotti, 2002: 33). On the cliffs of Uluwatu where the first surfers were filmed camping now has restaurants and hotels that offer views of people surfing the left hand reef-point break below them. There are hundreds of surfboards for rent and more
than enough lodging to keep the wave packed with surfers. Kuta, a bit farther north has thousands of people renting boards and trying to surf waves daily. Bali has now effectively become a surf city with high pollution levels, visible in the form of solid waste pollution, but there are also problems with sewage being pumped directly from these hotels into the water without treatment (Barilott, 2002; Ponting, 2013). There are also issues with drug trafficking, automobile traffic, gentrification, problems with illegitimate children left behind by surfers, and prostitution (Barilotti, 2002; 2012; Ponting, 2009; 2013). In the consuming places discourse, the quest for the perfect wave, just as many similar rushes (gold, oil, coal) represents a robber industry where the end product is an exhausted one (Mumford, 1934).

Surfers essentially were traveling to Bali in search of a wave riding fantasy, and tourism operators sought to give them just that. In so doing, ad hoc surf tourism development has led to rapid and irreversible change in this island. As shown in Figure 1.6, this process has spread beyond Bali and throughout almost every island chain in Indonesia. Shortly after Bali became well-known and crowded, the luxury live-aboard surf charter boat industry began. Born in the late 1980s these charter boats now cost between $200 and $1,000 USD per person per day and offer little to no interaction with Indonesian people – most of whom live on less than $2 USD a day (Ponting, 2008). The process of creating fantasy lodging epitomizes the ‘air conditioned nightmare’ of comfort capitalism, where humans are consistently sheltered from the true experience happening all around them (Miller, 1945). This charter fleet now consists of more than 50 charter boats and 10 resorts (Mach, 2013). These boats typically don’t treat their effluent and
also often damage coral reef with their anchors (Mach, 2013). But more importantly, well capitalized foreign operators with marketing knowhow dominate the industry and typically insulate surf tourism from the surrounding communities (Ponting & McDonald, 2013). This leads to a great deal of economic leakage and brings to the fore questions of rightful ownership to wave resources. In the next section the consuming places context will be used to explain the issues represented in Indonesia, beginning with the concept of a surfer geographical imagination.

3.3.2 The Surfer Geographical Imagination – Conditioning the Surf Tourist ‘Gaze’

Massey (1995:41) says that geographical imagination is a concept useful for understanding the “way we understand the geographical world, and the way in which we represent it, to ourselves and to others.” This is not meant to be understood as a static concept, at any level of analysis, geographical imaginations must be viewed as constantly constructed and contested. Harvey (1990:1) reminds us that the eye is never neutral and that “many a battle is fought over the proper way to see.” Whenever something is constructed and contested, questions of power must always be addressed. This brings up questions of authentication, “who has the power to represent whom and to determining which representation is authoritative” (Kirshenblatt-Gimblett & Bruner, 1992:304). Because cash rich surf companies began funding expeditions in the developing world and representing these trips in various media outlets, these representation became more powerful than others. The way these outlets represented the outside world became
adopted by many other surfers. Much of the surf geographical imagination is now constructed online through different types of interactions made possible with new forms of communication facilitated by technological connectivity, but in the time period we are now discussing, there were fewer channels for representing surf destinations in the developing world. The section is concerned with how the relationship between the surf media at the time, through the use of magazines and films, facilitated the desire to travel to the developing world to surf and also selected for environmental changes that could enhance the ability to turn these desires into reality.

The surfer geographical imagination was based on lies, fantasy, and the myths being propagated by the surf media. Despite the endless supply of images depicting waves breaking in tropical climes, typically, only general locations where offered or false names were given. Local cultures and styles of dress were shown, but they were just pleasant backdrops to the wave images and there was no attempt to convey any serious understanding of them. The locals were typically shown smiling and living the ‘simple’ life of the ‘noble savage’ (Nadasdy, 2005), that was lost in the Western context where the people digesting these images were situated. Through this imagery, surf tourist were conditioned to inculcate a certain perception of the local people before ever arriving where they were going – a surf tourist gaze was developing. Tourists began to select for their own encounters with locals from a distance and to capture locals with their own photography and stories of them living simple, happy and peaceful lives. All other realities were omitted in the process of forming and perpetuating a surf tourist gaze. It is through the dialectic between normal, everyday society and its contrasts, says Urry, that
the gaze ‘organizes the encounters of visitors with the other’ (Urry: 2002:142). From Peru, to Indonesia, to Central America and beyond, local people in the developing world were living happy, simple lives and surfers could experience this as well for a short stay in these places, just surfing, relaxing and living on the cheap. Through the concept of a surf tourist gaze, we can understand how surfers began to select and capture certain interactions with local people that conformed to the imagery conveyed by the early cultural intermediaries.

In this process, poverty becomes authentic and surf tourism can be likened to a ‘quest for authenticity.’ As was revealed in the “Forgotten Island of Santosha” feature mentioned in Section 3.2.1, much of what became the ideal surf experience was wrapped up in a sense of connecting with a pre-development past – Santosha was Hawaii 50 years ago. The dream of the perfect wave involved living simply and cheaply and in rhythm with the ocean. MacCannell (1999), in weighing in on the sociology of tourism discourse, suggested that what motivates tourists to travel is a ‘quest of authenticity’ born out of the alienating and isolating effects of modernity. Because the modern condition was divorced from a sense of tradition and coherence (Molz, 2012:113), MacCannel argued, “modern man has been condemned to look elsewhere, everywhere, for his authenticity, to see if he can catch a glimpse of it reflected in the simplicity, poverty, chastity or purity of others” (1999: 31). Surf tourist at this time sought out to live a business class version of this simplicity at the time period in question. They wanted to ‘gaze’ at others while themselves living a life that was simple and revolved around just surfing a great deal for its own sake.
This led to a situation where the surfer geographical imagination consisted of a world that became known in terms of regional generalizations. The poor people in all of these diverse places were homogenized as the authentic people living happy and simple lives. Despite regional and cultural differences, the people living around surf breaks in the developing world were viewed as a singular ‘other,’ rather than understood by complex cultural and regional differences. Because the people were lumped into one group, the simple and happy poor, the degree in which places were able to deliver on the four pillars of the perfect wave construct became the most important attributes of the hierarchical ordering structure of place. The reduction of geographically disparate destinations to a set of commercially created elements enabled surfing tourist space to become dislocated (Ponting, 2009), or in Gidden’s (1990) terms ‘desembedded,’ from its geographic and cultural setting. Each surf tourism area became known more by certain generalizations than specific cultural attributes. Costa Rica became known as, the land of Pura Vida, with a little bit of everything in a small country with welcoming locals. El Salvador, the rugged land of the right hand point break. Indonesia, a surf wonderland with dangerous reef passes and hollow barreling waves.

On surfline.com’s travel page on central Peru, it says, “Peru’s central region is the meat-and-potatoes of the Land of Lefts. Boasting quality pointbreaks such as Chicama, Pacasmayo and Huanchaco, this arid-yet-mild climate teeters on the westernmost corner of South America.” In this quote we can see how Peru is often referred in the surf media.
This area commonly known as the ‘land of the lefts’ or a ‘goofy foot’ s\textsuperscript{18} dream,’ meaning you go to Peru to surf left-hand point-breaks. This generalization homogenized the different regional differences in Peru as surfers planned their surf visits to move between different surf-breaks in the region. Areas within Peru came to be described to surfers by the quality of the waves in those areas, rather than the differing cultural circumstances and realities. Peru also became known as home to the longest wave in the world (la ola más larga en el mundo), Chicama. This meant surfers were engrained with the idea that a surf trip to Peru required a visit to this world class surfing outpost. This is an example of how the “gaze is embedded in certain social structures and discursive strategies that organize and regulate where tourist go and what they do” (Molz, 2012). I observed that surfers traveling to Peru often times travel from Lima all the way up the coast to the boarder of Ecuador to surf. Many of these surfers do not visit Machu Pichu, the Moche temple of the sun or moon, or the ancient Chimu city of Chan Chan, but instead, spend their time traveling to different left point-breaks and surfing. They attempt to capture their own images and stories that conform to those produced by the cultural intermediaries while they are on the travel path in many ways dictated by these representations.

This concept of a surfer geographical imagination, even further, typically identifies surfing areas with names that have no local significance. One place in Indonesia, for example, is known as Lance’s Right, named after the first person to surf

\textsuperscript{18} Goofy foot is a term used in most boardsports. I means that the rider places his or her left foot on the back of the board when they ride. Goofy footed surfers tend to prefer left breaking waves.
the place. Other places are called Macaroni’s and Dreamland, and there are many other places around the world named by Westerners as an imprint of surfer colonialism. I offer this as a closing point to suggest how surfers come to see the world as a result of imagery produced by cultural intermediaries. The outside world becomes broken into a smattering of surf breaks, which can be generalized and often directly named by Westerners.

3.3.3 Virtualism


It is one thing for surfers to be conditioned by the surf media to seek out certain places and interactions with the people in the developing world. While a specific surfer geographical imagination may have inspired a specific surf tourists ‘gaze,’ this would essentially be ‘all up in the heads’ of the tourists, were it not for the way in which isolated coastal environment began to materially change and local community relations altered to accommodate these desires.

In their research on ecotourism, Carrier and Miller (1998) and Carrier and West (2004) discuss the operation of ecotourism as a form of virtualism. They say virtualism involves institutional structures and practices that seem likely to reshape the social and natural world to conform to the virtual reality defined by important Western models of society and nature. West and Carrier (2004) argue that this reshaping underlies what they see as an “important contradiction in ecotourism: its tendency to lead not to the
preservation of valued ecosystems but to the creation of landscapes that conform to important Western idealization of nature though a marked-oriented nature politics” (485).

This idea is also fitting for surf tourism. Tourist presences, born from a specific geographical imagination influenced by cultural intermediaries came to be authoritative. In packaging and selling the perfect wave, surf tourism entrepreneurs sought to recreate this fantasy on the ground (see Figure 3.2). Surfers wanted to surf uncrowded waves in tropical pristine environments with intermittent gazes at local people living simple and happy lives. Because the media often gave fake names and descriptions of the locations being filmed and represented, these entrepreneurs had valuable information concerning how to get to these places and surf the waves being shown. Most surf packages created at this time charged a premium for guided tours to different surf-breaks and luxury accommodations that only mimicked what was said to be the simple/easy life. All of this; the gazing opportunities, the luxury accommodations, and transport to secret wave locations became packaged into tourism products and sold to would be tourists.

The charter boat operations in the Mentawai Islands created literal ‘tourist bubbles’ (Carrier & Macleod, 2005; Cohen, 1979; Graburn, 1989; Jacobsen, 2003; Jaakson, 2004), in that tourists on foreign owned luxury yachts are shuttled around and insulated from important parts of their destinations. The four pillars of the perfect wave are accentuated while all that might run contrary to it are avoided. Locals pull up in their small canoes smiling and selling handicrafts and the tourist who buy them think they are helping out (Ponting & McDonald, 2013). These tourists pay little attention to the fact that many of the islanders make around 15 dollars a month in their local trades and many
have malaria (Barilloti, 2002). This is not a trend isolated to this remote island chain in Indonesia. Though it has not been studied much elsewhere, this occurs on land in every developing world country where surf tourism takes place. Figure 3.2 shows an advertisement for a land based resort in El Cuco, El Salvador that charges almost $2,000 USD per week for some of the features shown.
Las Flores Resort & Surf Club 6 night Packages

Rate/Package Inclusions:
- Airport Greeting and Roundtrip Transfers (1 per suite booked)
- Air-conditioned guest suite w/ 31" Plasma TV w/Satellite programming and free WIFI internet
- Continental (pre-surf) breakfast served from 5am daily
- American (post-surf) Breakfast: 1 entree + 1 side from menu
- Dinner: 3-course menu w/ selection from seafood, meat/poultry or vegetarian entrees
- Juices, milk, coffee/tea, 1 soda per day, 1 bottled water per day + unlimited refills from 5 gallon water coolers
- IVA and Tourism Taxes
- Up to 2x daily boat trips (depending on conditions)
- Drinking water provided
- Services of LFSC surf guides and captains
- 1 optional fishing trip per week (may be exchanged for Surfing trip, 3pp minimum)

Figure 3.2  Land-based Surf Tourism Resort All-Inclusive Advertisement
This advertisement is included as a proxy for what actually happens on the ground in many developing world surf destinations. Tourism providers pop-up and create surf tourist bubbles that conform to the surf geographical imagination built from media representations of the perfect wave. Often-times locals are left out of the ownership in these enclave resorts and have a hard time competing with businesses such as Las Flores (Figure 3.2) who have large marketing budgets and luxurious accommodations (Latarola, 2011). Locals are often also coerced to practice what has been called ‘staged authenticity’ (MacCannell, 1999) as they try to conform to the image that surf tourists seek. This has to do with how the surf tourist gaze can come to condition the activities of local people (Urry, 2002) living around the waves into fitting the stereotypes from media representations. This occurs mostly to receive spillover benefits from the tourism industry, such as marginal service jobs, opportunities to put on cultural demonstrations, and the access to sell handicrafts and other items.

This was not only a luxury phenomenon. Surf-camps were also created at this time and became a model that was copied at surf destinations around the developing world – and remains so. Surf-camps are perhaps even more emblematic of virtualism than luxury accommodations because they look the same around the world and all look to provide surfers with a bare bones early surf exploration simulation – a low end ‘perfect wave’ vacation. These also insulated surf tourists in a ‘tourist bubble,’ but did so in way that embodied a commodified version of early soul surf voyages. In this model, surfers could pay to live in isolated coastal camps, surf and eat basic camp-style food. The first ‘surf-camp’ was established by Americans Mike and Bill Boyum and began operation at
Garajagan in east Java in 1977-78 (Carroll, 1988; 1989; 2000; Lueras & Lueras, 1997; Sparkes, 1996). Ponting (2009) said that only basic accommodation, food, water and beer, and transfers from Bali were provided for USD$200 per day with a maximum capacity of 10 surfers. The difficulty of access virtually assured exclusivity for camp guests (Warshaw, 2004). This location also limited interaction with Indonesians. While this was perhaps the first model, many others around the world came to provide similar services at a cheaper price point. The main idea to keep in mind was that all around the world similar camps began to spring up that offered almost exactly the same services. A surf camp in Costa Rica is almost indistinguishable from one in Indonesia or elsewhere. They all provide basic huts or areas to pitch a tent as close as possible to the breakings surf.

I chose to represent surf-camps and luxury accommodations to show how places around the world adopt characteristics indicative of tourist demand, demand that was conditioned in media representations of the perfect wave. While these two examples illustrate the two extremes of the surf tourism spectrum, many other hotels and other accommodations sprang up to offer similar bubbles. Of principle interest in this work is the way the technological channels of communication (magazines and videos) interacted with the flexible accumulation production paradigm (societal component) and selected for environmental changes in the developing world facilitated by foreign investors in the process of creating and meeting tourist demands. In this process, surf tourism development became an ad-hoc response to the desire to purchase the perfect wave in the form of a cushioned adventure (Ponting, 2009).
3.3.4 The Tragicomedy of the Surfers’ Commons

The dream: travel to a remote, unexplored coastline in search of quality, uncrowded waves. Discover a world-class surf spot or series of breaks, where the waves are plentiful, the surfers few, the beer cheap, and the living easy. Buy some inexpensive surf-front property, build your dream house overlooking the break, and live happily ever after, right?

The reality: the property you buy is disputed by neighbors or former land owners or, worse yet, the “owner” who sold you the property has already sold the same land to two other buyers. The caretaker you hire to look after the place, resenting an invasion of foreigners into his town, moves his family on the property and claims “squatters’ rights.” Then, in a few years, your idealistic uncrowded surf break becomes a well-known international surf destination, and the surrounding town transforms into a full-on surf ghetto, complete with overcrowding, crime, drugs, and fights between locals and foreigners. Such are the pitfalls of “surf imperialism” within the third world (Larson, 2002)

This quote helps to bring the consuming places narrative full circle. Many argue that wave resources can be seen as open access or commons resources (Buckley, 2002; Nazer, 2004; Ponting 2008; Ponting and MacDonald, 2013) and the way in which surfing waves are different from other CPRs is the basis for describing DWST as a unique SES. Each of these accounts evoke Hardin’s (1968) ‘tragedy of the commons’ parable to suggest that there are incentives to overuse any resource that is open to the public. These authors suggest that the economic forces that lead to over-fishing, over-grazing, and over-visitation of national parks also pertain to surf tourism. Up until now, it has been discussed how the surfer geographic imagination was formed in the pre-internet surf era and how the process of virtualism led to certain tourist desires taking material form in the developing world. This section suggests that because surf tourism was typically an unplanned, ad-hoc response to these desires that more entrants into these markets eventually began to cause environmental and social harm. While many early
surf entrepreneurs may have wished they could have walled out everything counter to the perfect wave imagery, specifically, too many surfers, this was not possible in most places. Because demand was so high for these surf exploration simulations as cushioned packaged holidays, many other surf ‘lifestyle entrepreneurs’ (Marchant & Mottiar, 2011) began new enterprises to try to meet this demand by providing more supply.

What Larson (2002) calls a ‘surf ghetto’ is the result of rapid tourism development in areas with high quality wave resources. Because there were often not too many regulations for tourism development, despite plenty of government encouragement for tourism as a mechanism to bring in foreign capital in many developing countries. Many tourism enterprises, therefore, prioritized speed of development above environmental and social sensitivity. In many cases, hotel effluent was piped directly into the sea and sensitive local materials were often used in the construction of many hotels and restaurants (Mach, 2013). Also, people living in the community had a difficult time competing with foreign entrepreneurs that had easier access to capital and more insider knowledge of surf tourist demand – a fairly complex niche industry (Latarola, 2011; Mach, 2013). These problems all get exacerbated as surf tourism grows. In this process many small fishing communities transitioned quite rapidly into surf cities. A condition where the quality of the surfing experience is diminished by increased development and overcrowding of wave resources – leaving high volumes of low-paying tourists in the wake of this development process that appears to fit quite neatly into Butler’s TALC model (Hughes-Dit-Ciles, 2009; Mach, 2009). This structural model
explains the transition from discovery to decline in tourism spaces in general and can be argued to fit rather nicely within the surf tourism context as well.

3.4 DWST – Après Internet

3.4.1 Internet Technology and the Voracious Consumption of Surf-Breaks

“Un-sustainable development results from technology outpacing changes in social organization” (Norgaard, 1984).

Thus far, technological advances have been discussed as conduits for allowing more people to surf in more places around the world. Communication technologies in the form of surf films and magazine articles allowed cultural intermediaries to represent the developing world as havens for the perfect wave, incentivized new wave discoveries, and perhaps inadvertently conditioned a form of tourism that sought to reproduce the surf fantasy in reality. This virtualism (West & Carrier, 2004), or the process of conforming material reality to meet tourism demands, however had many social and environmental consequences in DWST sites around the world. The introduction of ICTs to the surf tourism space can be said to have dramatically accelerated the process described in the neo-colonial surf tourism discourse. The four concepts that will be used to illustrate the rarely discussed idea that internet communication technologies exacerbate the problems identified in the consuming surf-breaks narrative are as follows: (1) the hermeneutic circle of representation (2) the availability of accurate wave data and forecasts (3) access to practical travel information concerning surf breaks and (4) targeted internet
advertising. These issues converge in this context to explain how new technological inputs accelerate the speed at which social forces lead to the detrimental consumption of surf-breaks in the developing world.

3.4.2 The Hermeneutic Circle of Representation

Before internet communication became a mainstay in the surf world, people most certainly kept journals, shot photographs and took videos of their surf travels. The sphere of influence was, however, quite small and this content remained between close friends and acquaintances. This chapter is concerned with how advance in ICTs create a new infrastructure for sharing information, images, and ideas related to DWST. This work is specifically concerned with the way surfers connect with one another online and also with how surfers interact with surf resources differently with access to information about wave conditions readily available in cyberspace. This particular section will focus on the former concern. With the adoption of blogs, community websites, and social media such as Myspace, Twitter, and Facebook, more people gained access to broadcast more information directly to more and more people than ever before. Rather than having information about DWST brokered by cultural intermediaries, surfers could now travel and share their experiences directly through various online communications channels. Personal pictures and stories essentially entered public domain. This section focuses on the creation and spreading of this personal/nonprofessional content, as well as, its impacts on how DWST evolves as a result of the technological change. The argument is that not only did more people’s surf images and content become available to more people in the
après internet surf world, but that because these images also conformed to the perfect wave imagery, they not only propelled the same consuming surf-breaks process, but accelerated it. This meant that more content representing fetishized surf imagery inspired even more travel and more surf tourism enterprises, which accelerated the pace that surf destinations transitioned from sleepy fishing villages to full blown surf cities.

The motivations for surf travelers to represent images that conform to the perfect wave myth are not the same as those of the early cultural intermediaries. Instead, it is argued that individuals are trying to mimic those created by the cultural intermediaries (Ponting, 2009). Individuals do not represent fetishized imagery for profit, but because a big part of consuming the perfect wave in the modern surf tourism world is representing it to others. Urry (1999: 138-140) says the process of collection comes to dominate the process of travel. A consequence of this, he later asserts is that, “tourism indeed appears to be understood as little more than the collection of a range of often disparate and relatively unconnected sights, which are given objectified form in photographs (Urry, 2002:177). Surf images that are selected for their ability to mimic the imagery created by cultural intermediaries, thus feed back into the consuming places narrative by then becoming the fetishized fodder for inspiring more surf travel. Ponting (2009) suggests that media marketing imagery of the perfect wave thus becomes a self-fulfilling prophecy. Figure 3.3 illustrates this hermeneutic cycle of representation:
Figure 3.3 Hermeneutic Circle of Representation – A 4 Stage Process (adapted from Hall, 1999; Jenkins 2003; Ponting, 2009)

1. Imagery projected to potential tourists through the surf media (by Cultural Intermediaries).
2. Images inspire travel.
3. Tourists seek out symbolic elements seen in the projected images and record them using visual technologies.
4. Personal photographs and videos are displayed to others (another form of image projection reinforcing the initially created images).

Figure 3.4 Social Media Representation (copied from Facebook.com)
Figures 3.3 and 3.4 combine to demonstrate how the hermeneutic circle of representation operates in the post internet surf tourism era. Images like the one shown in 3.4 are collected by surfers on their travels and are made publicly viewable. The image conforms to the idyllic surf travel imagery in that it represents warm water, nice sized blue waves, and just one person on a wave. This image is only one in a series of photographs from a surf trip to Indonesia chosen by the subject to represent himself as someone who travels to surf as an important component of his cultural capital (which can be assumed by the placement of this particular photo on the profile page). When others view photos like what is shown in figure 3.4 they then desire to experience the ‘perfect wave’ fantasy in exotic destinations and publish pictures of themselves in this pursuit. In this logical progression, the cultural intermediaries created the imagery that inspired a certain form of travel and now, with the introduction of social media into the fray, the same imagery is selected for and is rebroadcast from surfer to surfer (user interaction) and from surfer to their other non-surfing friends. These images spread on social media encourage more interest in the activity and further a certain style of surf travel, typified by selecting similar images to rebroadcast. The circle, as mentioned before in this narrative, becomes a self-fulfilling prophecy (Ponting, 2009). ICT, in this sense, is said to speed up the cycle from discovery to decline because of the instantaneous spread and wide-reaching exposure to this content.

As internet technology creates a platform for disseminating user generated content that conforms to the image of the perfect wave created by cultural intermediaries, the speed and spread of the associated virtualism and overdevelopment problems are
exacerbated. In the consuming places discourse, the hermeneutic circle of representation is a major concept helping to explain how the input of internet technology speeds up the trajectory from discovery to decline at surf breaks around the world. In the next chapter, this notion will be problematized, it is important at this point, however, to understand the deterministic nature of TES relationships in the consuming places narrative. New technology, such as internet communication, disseminates more of the same imagery to more people at quicker speeds. This in turn leads to more places becoming developed and ruined at faster rates than before this technological input. Put another way, postmodern consumer society demands commodified tourism products which cause environmental and social harm in the developing world and technology accelerates this process. This exposes the linearity of TES interaction in the consuming places narrative.

3.4.3 Accurate Wave Forecasts—The Beef between Hamilton and Collins

“Hamilton was old enough to remember the days when you didn’t have forty-eight hours’ advance notice to get to the waves, and had to rely on a combination of patience persistence, luck, and your meteorological divinations to score an exceptional ride” (Casey, 2010: 47).

Pre-contact Hawaiians prayed to their Gods for waves. They erected alters and had many chants to call up the surf. They believed that good surfing conditions were directly related to human/divine interrelations. Sure, Hawaiians picked up patterns in the surf and knew what seasons typically produced the best waves and what seasons provided the most consistent surf on which sides of the islands, but the source was mystical. Early surfers in the U.S had a similar connection to the ocean. They may have divorced the
connection between surf and gods for the most part, but waves where tied up in a mystical, ecological divine. Many quotes from surfers from the first half of the 20th century indicate that there was no great way of knowing when surf was on the way and most of the time people relied on information from surfboard manufactures, for no other reason than because they sold boards and could put together a convincing, albeit often baseless forecast (Rensin, 2008; Kotler, 2006). While many surfers still appreciate the confluence of factors that lead to quality surf, the ability to predict surf conditions is increasingly brokered by scientific experts armed with mathematical algorithms that crunch weather, bathometric, and swell data for predicting when and where good surf will occur (technology appropriated from military defense research as mentioned in Chapter 2). In the forecasting process, waves become objectified as they are dissected into attributes and quantified scientifically (See figure 4.3). This approach to wave prediction is getting more and more accurate and is adopted in more and more places around the world via specialized forecasting websites utilizing internet communication channels.

I just returned from a remote coastal town called Batu Karas, which is an 8 to 12 hour journey from Jakarta on the island of Java, Indonesia. This area is becoming increasingly known for being the home to a beginner friendly right point break (Geographic Imagination). It is even listed in the Lonely Planet Guide to Indonesia’s first page as a top ten must visit destination. Lonely Planet describes the area in this way:

The idyllic fishing village and surfing hot spot of Batu Karas……is one of the most enjoyable places to kick back in Java. It’s as pretty as a picture – a tiny one-lane settlement, with two beaches that are separated by a wooded
promontory…..There’s good swimming, with sheltered sections that are calm enough for a dip, but many visitors are here for the breaks, and there’s a lot of surf talk.

When I arrived, the waves were very small, and I began asking as many locals as I could when the waves were due to increase in size (partly out of research curiosity and partly because I was hoping to surf bigger waves). I asked 10 local surfers and 2 people working at the board rental shack when I could expect the swell to improve. Almost everyone said Thursday. I asked each person how they knew this, expecting detailed information about swell direction and near shore winds, maybe even some mysticism, but the response was quite the contrary. The first person I asked this question to, a longboarder with tremendous skill who was born and raised in the village and picked up English to give motorbike tours to tourists in the area said, “Magicseaweed gave the swell four stars for Thursday.”

Magicseaweed.com is an internet surf forecast database similar to Surfline.com, except all of Magicseaweed.com’s services are free, and this website gives daily wave predictions, as well as, typically projects out one week from any given day, and rates each day (and every third hour in each day) between 1 and 5 stars – 5 stars meaning the highest quality surf is expected that day. After inquiring with the 11 others, I found out that the prediction of good surf for Thursday came either from Magicseaweed.com directly or from someone who spoke to someone who looked at Magicseaweed.com. This, mind you, in a town with only one Wi-Fi hotspot that barely worked at the time of my visit in January 2013. I arrived on a Monday and surfed for three days, each of these days there were between zero and 12 people surfing at any given time. Sure enough on
Thursday I counted almost 40 people in the water, despite the fact that the conditions failed to produce waves worthy of 4 stars. Most of the surfers were tourists from other nearby towns, as well as, Indonesians who lived inland or in other nearby coastal towns.

This experience is evidence of an important concept when beginning to include a discussion of internet technology in the DWST SES. Were it not for the internet, this level of wave forecasting precision, as well as, the speed and reach of this data’s dissemination would not be possible. Forecasting sites like Surfline.com and Magicseaweed.com take surf-breaks around the world and create an algorithm for how different condition combinations would affect the local surf. This algorithm takes the ideal conditions for the surf break (shown in the bottom left corner of Figure 3.5), in this case Lobitos, Peru, and overlays wave data taken from offshore buoys and near shore weather readings to determine how many stars should be given at any particular time. Figure 3.5 shows the product of this data crunching and how it is presented on the internet.
Figure 3.5  Wave Forecasting Image (Copied from Magicseaweed.com)

The pink circle in the bottom left indicates the ideal swell size for this surf break, which for the one in question is between 3 and 8 feet. This means that if the waves were any smaller they would not sufficiently move the surfer along across the wave and if they were any larger the wave would most likely closeout (crashing all at the same time with no rideable section), not allowing for long rides and could be potentially dangerous. The pink circle above indicates that at 4.5 feet, the waves-height measurement, from near shore buoys indicates that the swell is within the ideal height window for this particular spot. The same can be seen for wind, circled in orange. The orange circle at the bottom shows an arrow pointing in the direction that indicates the best wind direction for Lobitos is when the wind comes out of the southeast. The arrow above, also circled in orange, shows that the current data matches up and the current wind direction is out of the southeast. The green circles show that the current swell direction also fits in the swell
window (the spectrum of swell directions that will produce quality surf in Lobitos) and also the swell period is seventeen seconds. Anything more than a 16 second swell period indicates long period groundswell which is typically desired to produce organized and powerful waves. All of this taken together and we can begin to understand why the ranking given for the wave conditions of the day being examined has been given 5 stars. We can also gain an appreciation for the objectification of waves into an amalgamation of quantifiable attributes.

According to Magicseaweed.com, their site is visited by more than 1.5 million surfers every month and they have the same data available from figure 3.5 (as well as predictions up to a week and a half in advance) for more than 3,000 surf breaks in 180 countries. Knowing when the waves will be good and where they will be good now has less to do with the Gods than having a device to suck in a Wi-Fi connection than ever before. To keep this discussion to surf travel within the linear TES consuming surf-breaks discourse, access to this information, in real time, and throughout 3,000 places in 180 countries, affects environments in two crucial ways. The first, local surf breaks in industrialized countries become increasingly crowded because of this forecasting precision. When people look online and see that there is going to be 5 stars at particular surf-breaks in California for example, people are more likely to take off of work that day and to make special arrangements to make sure they can get to a spot predicted to have good surf. Put simply, the technology causes more surfers to show up in the water at the same time. This technology compounds conditions of crowding in industrialized countries and this in turn inspires a heightened desire to travel to areas in the developing
world to escape these conditions. This wave knowledge however, also heightens conditions of crowding in DWST destinations, because it indicates the best time of year to travel to certain places and surfers often plan their travels based on wave predictions displayed on these websites, often days in advance (Reynolds & Hritz, 2012). While many non-surf tourists plan vacations often years in advance, surfers typically plan according to wave predictions and do so on short notice. Because this data is becoming more accurate and is in the hands of more people via internet devices, many surfers from industrialized countries converge on the same surf-breaks in the developing world at the same time, which can be referred to as ‘extreme seasonality.’ This leads to many issues associated with exploiting commons resources, overcrowding, and tourism growth in these places, which incentivizes the search for new surf breaks not yet brought into the surf map. This indicates how users interact with different resource units within a complex and multi-layered SES. The governance system dictating where surfers go and when, is now more than ever imbued with technological connectivity and rapid dispersion of information.

Stranger (2011: 162) argues that the use of weather and other relevant expert information to predict when and where to find good surfing conditions is an example of how “cognitive modes of knowledge are subsumed within the overarching aestheticization” process within surf culture. Meaning the products of rational scientific disciplines like meteorology are appropriated as tools of postmodern aestheticization, which Stranger (2011:158) says involves the “privileging of sensual experience and the emotions as against the modern orientation to instrumental rationality.” In the discussion
here, however, there is no such competition and the sensual experience does not triumph. It seems surfers rely on expert calculations to decide when and where to surf, with varying degrees of understanding where the information comes from and how it is calculated. Within a consuming surf-breaks framework, using scientific data to privilege the sensual experience of surfing around the world strengthens rather than weakens consumer/producer dualities. The process of making waves more geographically and temporally predictable with scientific knowledge and easy access to information about surf-breaks helps to create a scenario where the surf trip becomes shorter and more specialized so one can return home to work and save up for the next one.

The adoption of scientific knowledge as a means to boosting efficiency in surf travel, therefore, has associated cultural and environmental ramifications. Making surf conditions more predictable through a rational ordering process informed by scientific knowledge aids in the processes of demystification and rationalization in a way that aids in overcoming limits to surf tourism growth. Surf destinations under this technological regime become known, categorized, and visited with greater frequency, thus putting economic pressure to accommodate increased tourist demand, as well as, push the surf frontier to new destinations. The use of technological channels to disseminate both practical travel information and scientifically derived surf data aids the space-time compression (Harvey, 1990) associated with globalization. This is an integral part of the process whereby the global and tourism (or in this context surf tourism) come to be inseparable from one another, or hybrids – part of the same processes (Johannesson, 2005). The term hybrid here comes from Urry’s (2002) assertion that collectively (surf
tourism and the global) they are made up of an “assemblage of technologies, texts, images, social practices and so on that together enable it to expand and reproduce itself across the globe” (Urry, 2002:144). Tacit acceptance of Stranger’s (2011) aestheticization thesis is part of the process where technological advances are adopted within surf culture without normative value judgments. Technologies become used because they can be, not because they help to serve the goals of sustainability or human fulfillment from surfing and traveling to surf. In fact, in this section, the rational ordering process that leads to the creation of accurate wave predictions and getting this information in to the hands of more and more people was shown to compound the environmental and social issues associated with surf tourism, mostly by facilitating the convergence of more surfers in the same places at the same times.

In Susan Casey’s book called *The Wave* (2010), she examines the science behind big waves and the humans who surf them. The implications of the modern intersection between surf forecast information and the internet is illustrated in a subtle altercation between big wave surfer Laird Hamilton and the now deceased Sean Collins, ‘wave forecasting savant,’ and the creator of Surfline.com. Surfline began as a call-in wave service for California residents. In the pre-internet surf era, a few hundred Californians paid a few cents per call to get a surf report from Surfline, but the impacts of this interaction pale in comparison to what occurs now as this information is publically available on the internet. Surfline has since transformed in to a global online surf forecasting business. Like Magicseaweed, Surfline offers three days’ worth of free wave predictions, but unlike Magicseaweed, with a paid subscription to Surfline, subscribers
can receive text message when good surf is on the way and detailed information suggesting the best places to surf at any given time. In the chapter where Casey (2010) describes all of the big name big wave surfers converging in Tahiti at the same time to surf a notorious big wave surf-break (Teahupoo), which was predicted to experience ideal conditions on a specific day, she describes the scene in the airport with all of these pro surfers arriving at nearly the same time at the same tiny international airport. Casey discusses talking to Collins about the details of the swell when Hamilton, one of the pioneer big wave surfers, comes up to Collins and says, “Well, Sean, I see you got the whole world here….This is what happens when you send out a mass e-mail that says, ‘Giant Swell!’” (Casey, 2010: 47). This mild altercation highlights a key tension in surf culture. Hamilton embodies a belief that there is an aesthetic to being able to figure out where to find great surf on your own, but this gets lost when the information is spoon fed to people and the repercussions of this are heightening tensions in surf tourism. Collins, now deceased, embodied an ethic that suggested he spent a great deal of his life surfing and studying how to use publicly available weather and buoy information to scientifically predict good surfing conditions world-wide, and that this information was valuable and he could sell it. The key to bringing this section to a close is that neither would dispute that access to this information has led, and will continue to lead to crowded surf conditions almost everywhere on the surf map. This fuels surf tourism developments and the niche for tourism entrepreneurs to try to offer something that is counter to the everyday crowded surf experience. In this process, many remote coastal communities are impacted, for better or for worse, by the growth and spread of tourism in the internet era.
3.4.4 Access to Travel Information—The Death of the Surf Secret as a Governance System

I don’t understand why someone would write in to a website to let the world know how their surf trip was? Does anyone remember a surf trip pre-internet????????
To all the kooks in the world that might have scored on their one week off........shut the hell up!!!!!!
Feel free to keep your experience to yourself!!!!!!!!
Who knows maybe the spot won’t be crowded when you go back!
Or you can keep writing to impress your cyber friends and who knows maybe someone will read your message and end up bringing his rental car full of friends on your one week off to the uncrowded spot you wrote about!
Think twice about the internet revolution.
Go to a surf spot that you know nothing about....and keep it for yourself!
Be careful of the power that the internet has in the world of surfing!
(Comment on Wannasurf.com
http://www.wannasurf.com/spot/Central_America/Panama/cambutal/index.html)

Much attention in this work has been devoted to the role of cultural intermediaries in creating and disseminating perfect wave imagery through the communications technologies available in the post war/pre-internet era. These intermediaries are still around and constantly must negotiate and decide how much information about surf spots they ought to report. More places have become ‘well known’ since this time period and can be reported by name, but oftentimes many places in the developing world are still referred to by general location or faux-names. Steve Barilotti, a surf journalist cited throughout this work said in 2002 that “[m]uch of my job as a traveling surf journalist these days involves cleverly encoding the exact geographic coordinates of the places we discover while at the same time attempting to give a reasonably truthful rendering of the coastlines and cultures we encounter.” In this section, what is most important is that the
code surrounding the keeping of wave secrets is not so often kept within the new communication channels occupied by your average surf traveler.

Surf journalists were not the only people to keep surf locations secret. For many of the same reasons, many surf contests, the Rip Curl Pro Search being perhaps most emblematic, advertised and broadcasted surf contests without given specific locations. This was to help gain access to surf-breaks without interference and also help to ensure they would be able to return. Figure 3.6 represents how a 2006 contest was covered.

We can see in this figure, a clean pealing wave with few surfers.

Figure 3.6   Secret Surf Competitions (copied from Ripcurl.com)
The wave is referred to as “somewhere in Mexico” and also referred to as a hidden gem (‘la jolla’ in Spanish). Meaning that besides showing video of people surfing in the contest and broadcasting who won, there was no information about where the event was held considering ‘somewhere in Mexico’ is a pretty large target.

Figure 3.7 shows a controversial blog written by a surf traveler in 2007. This traveling surfer explicitly states that the contest mentioned above as ‘Somewhere in Mexico’ was held at Barra de la Cruz. Barra de la Cruz is a right hand point-break on the coast in Oaxaca. This blogger gives precise details concerning how to get to this break, including pictures of the road sign to look out for, and also gives information about how and where to camp should one choose to follow in the breadcrumbs of his around the
world surf journey documented in the blog. This particular blog post elicited 44 comments that are indicative of the debate that this type of information sharing and connectivity among users bring to DWST. One such comment from an anonymous visitor to the blog reads as follows:

You’re an idiot for creating this page. Especially the “I’m pretty sure the turn off lies...” part. You’re a dickhead. I hope you will delete this blog, but seeing as though you haven’t yet, you are obviously clueless. I’m sure your surfing ability matches though. You would have seen the beef that went down between Surfer, Surfline, Rip Curl etc... and you’d think you would respect the requests of the locals and avoid revealing more than you need to.¹⁹

Most comments seem to either corroborate the sentiment shared in this comment or defend the blogger for revealing this information with comments such as:

Everyone is so caught up on the secret spot which any taxi driver will tell you where it is if you mention rip curl contest. Barra is not a SECRET it was a PROMOTION by ripcurl. By traveling to mex you support the local economy so treat it with respect enjoy the adventure, it’s what you make.²⁰

This is just one example in one location in the developing world on one blog. While there are blogs representing almost everywhere there is surf, there are also community websites which aggregate specific user generated content about surf locations and most contain similar comments for and against information sharing. Wannasurf.com is one such community website where anyone can post whatever they want about surf destinations and detailed maps are given (see Figure 1.7). In addition to maps such as these, surf spot driving directions, lodging information, pictures, and other information

²⁰ ibid
are uploaded by members of the WannaSurf.com internet community and are occasionally aggregated by the administrators of the site. Anyone who registers can post whatever they chose on this particular page. Oftentimes, descriptions of a surf-break are posted by people with a vested interest in tourism in the area. Some are anonymous, while others directly promote their surf camps, hotels, and charter boats in the description of the break, or in the comments section. There are also seemingly genuine posts from surfers who have returned from the area and want to share what they saw, surfed, and experienced while they were there. Sometimes people share stories of being robbed and try to deter people from visiting the area. In addition, there are virtual arguments such as what is reflected on from the quotes taken from the Surfing the Dream Blog copied above found on many of the wannasurf.com individual surf-break information pages. This is why Molz (2012) says ‘technological anxieties’ creep in to the virtual tourism space, because it is hard to unravel what is real, what is an advertisement, and what is a complete fabrication, and more importantly, does any of it matter outside of how the content makes you feel or gets you to do? These questions will be examined in the next chapter when we begin to re-contextualize surf tourism in the internet technology era and begin discussing how DWST governance changes in this new landscape. In this section, however, the goal is to demonstrate how users connect with one another through online communication channels and spread information without cultural intermediaries. In a discussion of a linear TES relationship in surf tourism as a part of a consuming surf-breaks discourse, this means that this person-to-person interaction disbands old
monopolies on information sharing, which in turn, facilitates even greater amounts of surf tourism and uncontrollable DWST development.

3.4.5 Targeted Internet Advertising—The Filter Bubble and Surfing Tourism

Much of the literature on DWST focuses on how well-capitalized surf apparel companies perpetuate the ‘perfect wave’ image to sell surf themed apparel to the masses and that these marketing images, perhaps inadvertently, inspire a great deal of surf travel (Ponting, 2008; Reed, 1999; Tantamjarik, 2004). There has also been research dedicated to psychologically profiling surf tourists (Barbieri & Sotomayor, 2013; Dolnicar & Fluker, 2003b) and developing disparate market segments of surf tourists (Dolnicar & Fluker, 2003a), both with implications for entrepreneurs and governments with financial interests in marketing the right surf-breaks to the right clientele. There has yet to be research, however, on the impact of targeted internet marketing on surf tourism thus far. This work will by no means fill this void, but will describe the potential issue and suggest avenues of future research.

In Eli Pariser’s (2011) book, The Filter Bubble, he discusses the process of creating internet content that is personalized for each user. The main argument is that everyone’s google search is not the same. This however, extends beyond google, so it may be more apt to say that browsers now personalize the content that is presented to each internet user. The advertisements you see strewn in to your computer screen are different than what appear on your mom’s screen. When you and your mom both search for “Salina Cruz Mexico,” you will receive different search results. When I type in this
particular search, “Salina Cruz Mexico,” with the exception of a generic Wikipedia link, nine out of the top ten searches are about surfing and surf travel in Salina Cruz. In fact, I had to sift all the way to page 13 of my google search results to find information about an August 11th 2012 oil spill in Salina Cruz that went uncontained for 11 days killing many Olive Ridley turtles and spewing oil nearly 5,000 gallons of oil all over the beaches (Mull, 2012) in the area that the rest of my search results are so keen on having me visit. I find this a bit concerning because I also teach energy and environmental policy and research things like oil spills quite often, but I guess nowhere near as much as I look at surfing information (I am unsure if this is because of the click signals that I send, or if researching surfing perpetuates more consumptive acts than oil spills and is therefore prioritized in my searches).

Pariser’s explanation for this is as follows; as I search for information about surfing in Salina Cruz Mexico, some sites install tracking cookies and beacons on my computer. Search engines learn to filter information to me in concert with what I have historically clicked on and websites can target me with ads such as for flights to Mexico, hotels near Salina Cruz on Orbitz.com, and packaged surf tours from multi-national operators like WaveHunters. As a result, when I go to check my email, or look at my local surf report, I am constantly inundated with images of perfect pealing waves in Mexico and business ads promising to get me to the best wave with the best lodging and local expertise. And this also keeps my search results streamlined to present me with information about surfing above any other possible interest in the area. Pariser (2011:15) calls this a form of ‘invisible autopropaganda’ that indoctrinates each of us with our own
ideas, amplifying our desires for things that are familiar and leaving us oblivious to the unknown that lies outside of our historic click signals.

Figure 3.8 Screenshot from browser – Typical surf advertisements (copied from Surfline.com)

Taking a close look at figure 3.8, when I check the regional surf forecast for southern Mexico, I am hit with two advertisements for different surf tour operators in the area. Both show pictures of uncrowded surf and promise to get me to the best waves in the area they call “the last surfing frontier in Mexico.” I am also exposed to a link for a surfline.com feature on the best surf photographs taken from around the world. As someone who has been surfing for more than a decade and looking up information about different waves around the world for nearly that long, I have certainly been caught surfing down the virtual wormhole to different waves around the world whilst imaging myself surfing them. In reality, this mind surf mentality has not changed much from the
surf magazines era, which showed similar images throughout their copy and certainly had surfers visualizing surf journeys. The evolution of internet surf travel marketing, however, takes all of this to a whole new level. Though I have never traveled as part of a packaged tour offered by such providers, I can imagine how this type of advertising can make faraway places seem so easily accessible, even with minimal time commitments. A few inquiring clicks can almost seamlessly lead to surf holidays of varying durations. Mind surfing has never been more easily turned into physically surfing in the developing world in the internet era. It would be a very interesting study to somehow look into package surf tour clientele to probe deeply into what appealed to them in the marketing, find out how the advertisements sculpt their expectation and also discover their level of satisfaction with the surf tour, during and after its completion.

Not only do we leave a trail of cookies that are bought and sold on the information market to people with surf trips to sell, but the general surf information infrastructure is plagued with different enticements to go elsewhere, to get out of the norm, to move from cold water and crappy surf to tropical bliss. When I check my local surf report on Surfline.com for example, I am inundated with similar advertisements to the ones shown in figure 4.6, but also features on Surfline.com’s homepage (which is typically passed through on the way to local surf reports) show pictures of people (pros) surfing amazing waves in other places. Perhaps the most illustrative mainstay feature on the homepage is the “Best Bet” series. “Best Bet” is a monthly prediction Surfline.com makes at the end of each month suggesting the best possible place in the world you could go surfing the following month. These locations are almost always in the developing
world and the prediction is based on data and storm predictions for the season. Surfline basically looks at historic data on significant wave height and wave periods, as well as long range storm forecasts, to decide what places have the highest likelihood of receiving long period swell with more than three feet of significant wave height, for the highest percentage of the time for the month. Throughout the month, pictures from the best bet location are brandished, as if to show you that these guys know what they are talking about, and if you listen to them, you can find the best surf out there. This most certainly contributes to extreme seasonality (surfers converging at the same developing world locations at the same time), but this has yet to be confirmed in any scientifically verifiable way. However, it is safe to assume that Surfline.com telling millions of surfers each day that, ‘if I were you, I would head to Peru this month,’ has some impact on DWST.

Table 3.1 Surfline.com Monthly Best Bets – 2013

<table>
<thead>
<tr>
<th>Month (2013)</th>
<th>Surfline.com Best Bet Location</th>
<th>Headlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Ecuador/Galapagos Islands</td>
<td>South American turns big NPAC swells into fun-sized warm-water surf</td>
</tr>
<tr>
<td>February</td>
<td>Northern Baja Peninsula / Mexico</td>
<td>Just south of the border looks to see a fine February</td>
</tr>
<tr>
<td>March</td>
<td>Caribbean</td>
<td>North Atlantic about to offer up a series of late winter swells</td>
</tr>
<tr>
<td>April</td>
<td>Tahiti</td>
<td>South Pacific island chain ushers in south swell season</td>
</tr>
<tr>
<td>Month</td>
<td>Location</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>May</td>
<td>Easter Island / Rapa Nui</td>
<td>South Pacific poised to send swell to earth’s most remote island</td>
</tr>
<tr>
<td>June</td>
<td>Mainland Mexico</td>
<td>South of the Border poised for a good month of surf from series of S-SW swells</td>
</tr>
<tr>
<td>July</td>
<td>Peru</td>
<td>South America’s long, dusty jewel expected to open month with a bang</td>
</tr>
<tr>
<td>August</td>
<td>South Africa</td>
<td>One country, two oceans, 1700 miles of coastline – and series of swells on the way</td>
</tr>
<tr>
<td>September</td>
<td>Northern Indonesia</td>
<td>Southern Indian Ocean churning out swell all over the place – here’s our top pick</td>
</tr>
</tbody>
</table>

In short, the cybernetic nature of the personalized internet browser has many implications on surf travel. Every time I search around for information on surf-breaks or click on my friends’ Facebook pictures from their surf travels, I am sending ‘click signals’ that can be compiled and applied to display search results from internet search engines and Facebook newsfeeds based on past clicks. Because I am interested in surf travel, my browser becomes configured to display advertisements about surf travel and information about surf travel to a position of high priority while I am on the internet for work or other purposes. This a form of ‘informational determinism’ in which what I have clicked on in the past determines what I will see next – a web history I am doomed to repeat (Pariser, 2011). I am not alone in this information trap. Not only do I, and people like me want to travel and surf because we have had positive past experiences, but every time we get on the internet for any reason, we are constantly reminded why we want to do this, that we are not currently doing it, and we are given information and avenues to make our mental trips into surf trip reality.
3.4.6 Conclusions

In the consuming surf-breaks narrative, a linear relationship between technology, environment, and society is tacitly accepted. Postmodern consumer society creates the conditions for valuing surfing as an experience and as an activity in which identity can become coherent around. Technological advance in surf equipment and in communication channels leads to more surfers and surf tourism, which in turn leads to the destruction of environments as surf-breaks become crowded and riddled with unplanned development. Internet communication channels speed up the pace in which places are discovered and ruined in this discourse through four avenues. The hermeneutic circle of representation spreads fetishized developing world surf tourism imagery from surfer to surfer through social media channels, which increases surfer demand to fan out and capture similar representations. Accurate surf forecasts and expanded access to this information on surf websites intensifies crowding both at home and abroad, placing pressure on DWST destinations to cater to more tourists (converging at the same time in reaction to surf forecasts). Thirdly, social media (community websites, social networking sites, and blogs) reveals how to get to where once secret destinations are, which can lead to increases in visitation and incentivize finding and establishing surf tourism industries in new places. And lastly, our internet life-worlds are in many ways configured to sell us things like surf trips that we often fantasize about. These four technologically enabled and accelerated processes, taken together, can help us to understand why the modern technological era can be argued to perpetuate the same
social and environmental injustice of early periods of surf travel. Not to mention at a more accelerated and destructive pace.

In the next chapter I will attempt to explain how re-visiting a co-evolutionary TES framework can problematize the determinist linearity that has so far been presented and suggest that there are other ways to think about and understand the way technological improvements interact with the evolving social and environmental setting. I will ask how internet communication technology enables a new governance infrastructure that can lead to different DWST variable relationship, perhaps, with positive and more sustainable outcomes. Within this discussion, different models that have been created within the contemporary DWST SES will be highlighted, paying particular attention to the way in which advances in ICTs help to bring about new models for governing wave resources and help to make these experiments viable. This will involve showcasing new governance regimes forming in different areas of the world that represent the complex nature of self-organization to protect DWST destinations from overuse and exploitation.
Chapter 4

FROM THE ENDLESS SUMMER TO THE SURF SPRING: CONCEPTUAL FRAMEWORK, LOBITOS CASE STUDY, AND METHODOLOGY

4.1 Introduction: The Surf Spring

Perhaps it seems a bit dramatic in the title of this chapter to evoke the events that resulted from bottom up peoples’ movements in North Africa and the Middle East when discussing surf tourism, but it is not done without reason. Comunello and Giuseppe (2012) find that the roots of collapse for authoritarian regimes, as were present in Tunisia, Libya, Egypt and other nations, lie in three general structural problems: the need to maintain high rewards for the powerful inner circle (Gurses and Mason, 2010), the persistence of high levels of corruption and deception, and the failure to adequately spread benefits beyond the inner circle. While these structural issues are not very contentious, there is much debate surrounding the role social media played and continues to play in the so-called ‘Arab Spring.’ This debate is not limited to the “Arab Spring” but also to studies on changing regime dynamics in China, the Philippines and many other places around the world.
Most people weighing in on this subject are split in two camps: the digital evangelists who argue that social media had a revolutionary role in the events that transpired in places like Tahir Square and plays a major part in democratization movements in places like China, and the techno-skeptics who minimize the impact of social media and often even suggest that social media had, and continues to have, a detrimental impact in such movements and uprisings (Comunello and Giuseppe, 2012). This study shows that when surf tourism is the focus of study, the role of ICTs in changing regime dynamics cannot be underestimated.

The ‘Surf-Spring,’ is a movement towards spreading benefits and minimizing the social, economic and environmental costs incurred by the local communities who live where the waves are. Although it may not involve mass demonstrations of civil disobedience resembling the protests in the Middle East and North Africa, the ‘Surf Spring’ is happening and involves challenging old regimes of power that once dominated surf tourism. The main questions that will guide this chapter is in what ways does the DWST governance system change with the introduction of internet communication technologies? In other words, what new forms of self-organized governance become possible in the era of surfing and internet technology that have the potential to foster more local benefits (economic, environmental, and cultural) and minimize costs? This discussion will challenge the notion presented in the closing section of the last chapter that there is a linear TES relationship in DWST which suggests that technology can only increase the rate at which new surf-breaks become discovered and destroyed. The infiltration of the internet as a technological input within the DWST SES will be used as
breakpoint in the analysis to examine how an evolving governance structure can be argued to facilitate greater transparency, participation and accountability in global surf tourism. This builds from the co-evolutionary TES conceptual framework and will help to illustrate current higher tier variable interaction and outcomes in DWST in a way that will inspire new ways of thinking about technology, governance, and surf tourism.

4.2 Surf Digital Evangelists and Surf Luddites

Most surfers and those who study and write about surfing tend to be in one of two camps when it comes to evaluating the role of technology in changing surf culture. The perhaps more popular side, lauds the increase in access to accurate surf information enabled through ICTs for allowing “greater flexibility in surfing lifestyles, in terms of both residential location away from the coast and enabling better scheduling of work commitments” around surfing and surf travel (Ford & Brown, 2006: 75). The majority of surfers, even if they have not thought much about the issue or talk about it often, are happy to have access to real-time surf conditions, surf cameras\(^{21}\), and surf maps. If their job takes them inland, they can still keep an eye on the nearby surf conditions by watching them on real-time surf cameras while sitting at their computers and also plan surf trips around swell predictions and cameras in other parts of the world. Images like

\(^{21}\) Surf cameras are becoming more popular all over the world (surfline.com provides access to nearly 300 surf cameras around the world). Surf cameras show live footage of popular waves 24 hours a day. Surfers often check their local surf camera before deciding whether or not to get their things together and go to the beach to surf.
the magicseaweed.com surf forecast from Figure 3.5, help make their surfing time more productive. More productive in the sense that they can perhaps plan to take some time off of work or negotiate going in late when the waves are predicted to be good. This allows surfers, in theory, to get more waves when they go surfing because they can time their surf trips with wave forecasts. Surfers do not waste much time physically driving, or walking to the beach and checking the surf, as the slogan for surfline.com states, surfers today “know when to go.” Rather than seeing surfing as something counter to the production principle (Lawler, 2011), for many people on this end of the spectrum, technology allows surfing to continue in ways that can either have no effect, or even increase work productivity. This is why Hutson (2009) says:

[t]he 21st century is all about the strategic strike. Set your aim, clear your calendar, and pull the trigger….Do your homework with the swell forecasters, stalk some airline and rental bargains online, review your surf spot guides, and those weeks spent sweating out the flat spells in a hot Mexican palapa become a distant memory.

This ‘strategic strike’ mentality helps to explain why many folks are happy to incorporate these technological inputs in to their lives without much consideration of the connectivity they may be losing with the natural world and other cultures. Surf trips are about surfing, all the down time getting to know the people living around the waves that took place in the past was just one way to pass the time waiting for surf, done more so out of boredom or convenience than genuine cultural intrigue. For technological optimists, planning trips with cheap airline tickets and online hotel deals when the swell is sure to be running is progress at its finest.
Many of these same folks enjoy sharing pictures of their surf travels on social media and looking at and commenting on the pictures their friends post. They also research their surf trips on blogs posted by others and on community websites that aggregate user uploaded information, comments, and warnings. Between surf forecasting websites (and their travel sections), community web page forums about surf spots (i.e. wannasurf.com), and the hyper-connectivity enabled in arenas like Facebook between surfers and their surf friends around the world, there is very little need for guesswork.

More and more, planning is done in front of the computer, rather than wondering around in a country trying to figure out where to go and what to do. In short, access to ICTs help many people to surf more productively and with more information, which in some respects reduces the need for powerful regimes to monopolize information and charge exorbitant prices for marginal services (though some still manage to do so). For the technological evangelist – technology, will set surfing free.

On the other side of the debate are those who source the ruination of surf tourism to the way in which the internet spreads real-time information about surf conditions and ready-made guides with information concerning how to get (almost) everywhere, when to go, and where to stay. Philosophically, techno-skeptics believe that some of the most integral components to surfing, the extended time off of work searching for waves and the waiting, checking and being surprised when good surf arrives, are being compromised by increased reliance on ‘artificial’ internet communication technologies (Banks, 2004). In discussing surf tourism to developing countries specifically, Latarolo (2011), claims that reliance on the internet for surf travel information (good surf predictions, how to
travel and where to stay) leads to the erosion of once cherished interactions between hosts and guest. For one, traveling only when waves are good and then leaving, limits the amount of down time spent in the developing country, a time when historically, a great deal of cross-cultural exchange has occurred and when economic benefits associated with surf tourism spread to different outlets. Spending less time ‘on the road’ limits host guest interaction and perpetuates shallow representations of developing world surf tourism locations where the surf conditions are all that is discussed (because that is all that traveling surfers come to know). Techno-overreliance also contributes to core/periphery issues in that internet shoppers will be most likely to stay in places with high internet profiles, rather than a local option relying more on word of mouth and walk-up business (Latarolo, 2011).

The skeptics also argue that the widespread access to increasingly accurate surf forecasts and webcams increase the quantity of surfers converging at the same times and places – exacerbating conditions of crowding and its associated impacts (Ford & Brown, 2006; Westwick & Neusthul, 2013). Some of these folks wax poetic about the good old days through their writing and others, like the often misunderstood Luddites in early 18th century England, smash machines – as demonstrated through multiple instances of surf camera vandalism (Killgannon, 2008; Scott, 2003). Also in this vein, local entrepreneurs banded together in one surf town in the developing world, Salinas Cruz, Mexico and banned any sort of surf media coverage indefinitely, citing historic exploitation in the area following fetishized media coverage (Cianciulli, 2012). Instances of smashing surf cameras and kicking out people with cameras highlight the growing recognition of the
role technology plays in social and environmental change in surf-culture, but there has yet to be serious academic attention dedicated to this topic.

This chapter seeks to build a more nuanced understanding of the role advances in internet communications technologies (ICTs) play in changing surf tourism governance in hopes that it will inspire further discussion and research. The goal is not to sway the scales towards either of these poles – both bring up essential thoughts and reflections to the surfing and technology debate – the goal is to frame the discussion of the role advances in ICTs, especially social media and forecasting precision, play in changing the way surf tourism occurs in the developing world – at a time when most surf travel now also begins and ends on the Web.

4.3 From the Surf Tourist Gaze to the Surrounding Gaze

A great deal of this work has focused on the pre-internet surf era and the way cultural intermediaries created fetishized content which inculcated a surf tourist gaze. This gaze was said to condition certain travel behaviors that facilitated unsustainable outcomes in DWST’s early history. This section asks, what happens when the dominant source of content dedicated to DWST becomes surfers connecting directly with one another through advances in ICTs? Sure, some fetishized imagery gets rebroadcasted by surfers as discussed in the hermeneutic circle of representation (Figure 3.3), but this is not the complete story. Technological connectivity also opens up space for dialogue and allows more voices to have a say in representing what is going in in the world. While
regimes of power in DWST had an easier time perpetuating the myth that all is well in DWST (Ponting & McDonald, 2013) when cultural intermediaries had an authoritative voice, this ability slowly erodes as more individuals are granted space to chime in on the subject. Share their own experiences; become exposed to stories of exploitation and corruption; and also come in to contact with organizations trying new models to improve local community conditions.

This section is meant to reveal how a ‘surrounding gaze’ can come to supplant the surf tourist gaze as the key driver for conditioning the conduct of surfers and entrepreneurs in the developing world. This means that users connecting with one another can help drive new normative standards and challenge the status quo. This is no more inevitable than surf tourism remaining a neo-colonial force in the developing world. Both are possibilities which need to be understood if new approaches to governance are going to gain support and become effective at delivering on new normative criteria for sustainable surf tourism.

4.3.1 The Problem with Privatization

Most scholarship dedicated to surf resources suggests that when waves in the developing world are unmanaged, the resource will be overused to the point where the value of the resource will diminish and many social and environmental problems will become endemic (Buckley 2002a, 2002b; Hugues-Dit-Ciles, 2009, Ponting, 2008, 2013). Using a SES framework allows one to visualize how Ostrom’s (2009) higher tier variables (Figure1.1) can interact in a way that leads to unsustainable outcomes. Thus far,
it has been argued that interactions between users and resources units in DWST have not historically been brokered by a sustainable governance system and that this has led to negative outcomes associated with surf resource overuse. These negative outcomes were shown to also impact other SESs. Many suggest privatization as a key avenue for managing wave resources. The central idea is that if wave resources can be privatized and owners given long-term ownership guarantees, there will be incentives for managing waves rather than allowing them to become overcrowded and polluted. These ideas are compelling and many suggest that they have been successful in places like Tavarua Island, Fiji (Hughes-Dit-Ciles; Ponting & Obrien, 2013).

In Fiji, tribes have had traditional property rights to reefs (qoliqoli) for centuries, which denoted who could fish where. Dave Clark, the resort owner from the US, who interestingly enough may have been one of the first to write about surf tourism and carrying capacity in his bachelors thesis in the 1980s (Westwick & Neushal, 2013), was able to lease the rights to these reefs from the tribes with historic ownership. He then charged a premium for guaranteeing surfers uncrowded world class when they stayed at his resort which managed surf access. Many argued that this relationship kept impact low and benefited native Fijians, at least those that possessed the historic fishing rights to these reefs. It has been estimated that these qoliloqi owners received roughly $8.5 million USD in lease payments between 2000 and 2010 (Nadore, 2010 quoted in Ponting & O’Brien, 2013). The wealthy surfers who received the surfing conditions they paid for also benefited a great deal from this arraignment (the multi-year waiting list for surfers to get in to Tavarua resort acts as sufficient evidence). Despite the high cost of a weeklong
stay in Tavarua, demand exceeded the supply throughout the tenure of this relationship. This arrangement lasted until 2010 when the Fijian government revoked the exclusive rights to these surfing reefs in an attempt to bolster surf tourism growth and the spread of benefits beyond this island enclave (Ponting & O’Brien, 2013).

I retell this tale here briefly because privatization, even though it may have potential in some surf areas, is not the only model for managing resources and in many cases may be neither politically/ideologically palatable, nor practically manageable. As the case with Tavarua illustrates, privatization of the waves that broke off of the coral reefs fringing the island was both manageable and brought in great deal of money for those involved (traditional resource owners, as well as, the foreign entrepreneurs). While this was deemed a success in terms of limiting social and environmental impact (Buckley, 2002; Hugues-Dit-Ciles, 2009; Ponting & O’Brien, 2013) there were many other Fijian islands in close proximity to Cloudbreak and Restaurants (Tavarua Resort controlled surf-breaks) with entrepreneurs and local surfers that wished to take tourists to surf these famous waves, as well as, be able to surf the waves without paying thousands of dollars to be put on a waiting list to stay at Tavarua resort for one week. In a sense, the privatization model was another way of creating a powerful regime, even if based upon historic fishing rights, and eventually the relationship was brought down under the premise that this resort was stifling surf tourism growth in Fiji.
4.3.2 TES and Governance

Beyond the local politics, ownership of ocean waves is a tough concept for surfers to grasp, and perhaps rightly so. This dissertation is about moving beyond only thinking about privatization and considering other avenues of governance that can lead to effective wave resource management. The TES approach is used to couch this discussion because technology has played a big part in raising awareness of issues associated with surf tourism and building towards new ethics and ideals in DWST. Technology has also helped to facilitate more realistic, non-fetishized information about places and given birth to new management strategies, as well as, NGO’s dedicated to help communities benefit from their indigenous wave resources. This chapter will build from the combining of the SES and TES frameworks to explain how important variables that lead to self-organization are interconnected and bolstered by technology. These ideas will be illustrated with a case study of volunteer surf tourism (VST) as one form of user self-organization growing in popularity to try and keep wave resource benefits local and sustainable. The ability of this approach to facilitate a sustainable institutional framework in Lobitos, Peru, will be analyzed using the framework analysis for sustainable surf tourism (FASST), which will be a part of this exploratory research on the way some of these new governance approaches impact localities in the developing world.

Technology and surf tourism have always been very closely linked and many examples have been mentioned throughout this work. Surf travel, as we know it today, was born with independent travelers searching for new surfing spots in the 1960s (Barbieri & Sotomayor, 2013). Why this occurred at this particular time is often
attributed to a confluence of complex and interconnected factors, often made to appear simple and well-ordered in hindsight. Barbieri and Sotomayor (2013) synthesize the work of Ponting (2006), Butts (2001), and Tantamjarik (2004) to suggest that surf tourism took off at this time because of more affordable air travel, lighter surfboards, and the image of a surfing culture delivered through mass media (Barbieri & Sotomayor, 2013: 112). The reasons air travel was cheaper, surfboards got smaller and lighter, and images of surfing were so readily consumed were argued herein to be the products of complex TES interrelationships that can be seen to situate the DWST SES. Non-the-less, as surf tourism’s popularity grows, more and more places in the developing world will be impacted by the ‘style’ of surf tourism that results from different TES interrelationships over time. This chapter is concerned with how governance of wave resources changes under changing societal TES relationships.

The main concern is with how technological innovations co-evolve with society and environment. The surf tourism zeitgeist of any given time period is argued to be a “relational effect” of greater TES dynamics. Norgaard say that “social and environmental systems coevolve such that environmental systems reflect the characteristics of social systems, their knowledge, values, social organization, and technologies” (1994:40-41). Therefore, Understanding surf tourism cannot be divorced from a larger framework of analysis that encapsulates the way in which TES interrelationships place selective pressure on one another and constantly change.

Table 4.1 is not meant to be exhaustive, it is meant to illustrate how technology, environment, and society are not static, but change and coevolve together. These changes
are the product of the interactions between different SESs which are impacted by the changing variable dynamics of individual SESs, such as DWST. In this section, new variables will be added to Ostrom’s (2009) variables that were discussed in chapter 1, that are found most likely to lead to self-organization to stave off the collapse.

Ostrom (2009) argues that there are certain second tier variables that are most significant towards understanding whether or not communities will self-organize to manage a resource (see Table 1.a). She argues we must find better ways to measure these variables, as well as, find strategies to enhance the variables that can be controlled. These key variables can be found under each of the higher order variables, but in an attempt to streamline this analysis and make in applicable to surf tourism, the interaction of certain second tier variables (some Ostrom’s and some added in this study) and the likelihood that they will combine to make some form of autonomous organization a reality in DWST will become the focus. Of the 10 key variables Ostrom (2009) suggest, five are found under the higher tier ‘user’ variable. And Blanco (2011) argues that these user variables are crucial for voluntary sustainable tourism measures to be taken up as well. These are (1) the number of users, (2)leadership/entrepreneurship, (3) norms and social capital, (4) knowledge of SES/mental modes, and the (5) importance of the resource for peoples’ livelihoods. But where do these five essential variables come from, how do they come to be in any specific context?
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Society</strong></td>
<td>Industrializing – Fordism – Urbanization – Great Wars and Depression</td>
<td>Post-industrialization – suburbanization – Postmodern – Service Society</td>
<td>IT, leisure, and service driven</td>
</tr>
<tr>
<td><strong>Development model</strong></td>
<td>Colonialism</td>
<td>Structural Adjustment/neocolonialism</td>
<td>Sustainable Development/post colonialism</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>Surfboards – Heavy, large, single fin (&amp; finless) surfboards similar to early Hawaiian models</td>
<td>Surfboards – lighter mass produced surfboards with leg-ropes &amp; wetsuits</td>
<td>Surfboards – addition of soft top/foam boards for low risk learning</td>
</tr>
<tr>
<td></td>
<td>Media – Mixed mainstream media representations in wide circulation periodicals</td>
<td>Media – Hollywood film representations of surfing &amp; birth and growth surf specific periodicals and films</td>
<td>Media – online surf periodicals, forecast websites, community websites, blogs and other social media</td>
</tr>
<tr>
<td></td>
<td>Travel – expensive airfare/ long sea voyages, disrupted by war</td>
<td>Travel – cheap airfare, growing middle class with desire for travel, growing surf tourism infrastructure</td>
<td>Travel – cheap airfare and increased options for packaged holidays and guided surf tours</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Isolated enclaves situated around slow rolling and predictable point break style waves.</td>
<td>Year round surf in colder environments, beach breaks and other areas possible to surf, more surfing spaces in the developing world available, crowding increasingly becoming more of an issue in industrialized countries.</td>
<td>Crowding infiltrating most known surf areas around the world, new discoveries in more remote areas, and issues of managing wave resources come to the fore.</td>
</tr>
</tbody>
</table>
This is not an easy question to pose an answer to, but from research in the field and from reviewing relevant literature, it seems there are three variables that are crucial for understanding how these five user variables are formed and become drivers for self-organization. The first is the presence of a neighboring resource unit perceived to be degraded (nearby degraded resource unit), the second is a perceived threat to local resource in question (one and two are linked in many cases) and the third is the creation of a ‘surrounding gaze’ (Du, 2011; Warren and Zeng 2013; Yee, 2011) often electronically, which spreads information, ideals, knowledge and perceptions of DWST as a SES and potential benefits and challenges associated with user and resource unit interactions. Much of the ‘surrounding gaze’ in the case of DWST is formed from exposing past instances of exploitation, as well as, from information about NGOs and other organizations trying to implement sustainable solutions around the world (See Table 4.2). But perhaps more importantly, DWST is best understood by the way these three avenues converge to encourage community members in young tourism destinations and the surfers traveling to them, to think about preventing the undesirable circumstances found elsewhere.

In some respects surf tourism began a century ago, but by now, many coastal areas in the developing world have been touched and altered by the activity. The people living in most of the places that I have traveled to are engaged in the process trying to decide what the future should look like, and most, have a place in mind nearby that they know they do not want to end up like. In many places in Indonesia, Bali is referenced as a place that is experiencing undesirable development. In Costa Rica, many communities
I visited suggested that they did not want to turn into another Tamarindo or Jaco. In Peru, I took part in a survey of more than fifty households and more than half of the respondents mentioned their desire to keep Lobitos tranquil. To keep the drugs, loud noise, and uncontrolled development out that has since infiltrated Mancora, a neighboring surf town that has experienced high levels of surf tourism related development (Godden & Perich 2010). In Salina Cruz, Mexico, many of the locals and local entrepreneurs want to protect the area from what has happened in neighboring Puerto Escondido and Barra de La Cruz (Cianciulli, 2012). Perhaps even more importantly, there has been a growing awareness that these nearby tragedies of the commons are linked to other cases around the world, and that doing nothing will most likely result in undesirable change.

Where does this growing awareness come from? It comes from people writing and spreading information about the historic impacts of surf tourism and NGOs and communities trying new systems to prevent undesirable change. Much of the DWST field was born in the early 2000s from surf journalists reflecting on the changes they witnessed in areas that they happened to be some of the first people to visit and surf. As they revisited areas in Costa Rica, Nicaragua, El Salvador, Mexico, Hawaii, and Indonesia, to name a few, they could not help but reflect on the how much and how rapidly the conditions had changed over time. Barilloti’s “Lost Horizons: Surf Imperialism in the 21st Century” and Larson’s “The Making of a Surf Ghetto, both published in 2002 paint vivid portraits of once quite fishing towns turned into crowded, polluted places, with prostitution, illegitimate children, drugs, and surf rage. In an
interview for Barilloti’s article, he spoke with Peter Reeves, one of early surfers to Nias, Indonesia and who travelled there frequently, he said of the area:

“[t]he alcoholism, gambling, crime, and on my last trip there, the small kid I taught to surf in 1981 is now a pimp for working girls on the point. I wonder if the simple life of harvesting coconuts and rice would have been a better destiny for these people” (2002:93).

In this tradition, there has also been a push for surf films that move beyond the early surf pornography (though there is plenty of surf porn still produced – in fact the majority still is) in an effort to highlight and problematize some of the realities associated with surf tourism and development. *The Golden Pig* (1997) and *Waves of Change: Balinese Surfer 2* (2002) are perhaps two of the best examples of the early work in this vein. These films and articles helped to begin a dialogue about surf travel that continues to this day, the main message being that surf travel is not all about riding waves in pristine environments, there are implications associated with the activity that need strong consideration as we move forward. Many of these pieces lament the loss of the perfect wave in a sense, robbed by greedy capitalist and under-educated surf tourists, but a great deal of work after these early critiques has taken up the task of trying to dream up new possible futures.

Much of the aforementioned work, and, I am sure, other things that I have not noted, in addition to the embodied experiences of many surf travelers and host community members (Ponting & McDonald, 2013), inspired a growing academic field which really began to take shape at the onset of the 21st century and continues to grow and spread (Martin & Assenov, 2012). Academics have posed frameworks for assessing
and encouraging sustainability at surf location in the developing world (Buckley, 2002a, 2002b, Hugues-Dit-Ciles, 2009, Krause, 2013; Martin, 2010; O’Brien & Ponting, 2013; Ponting & O’Brien, 2013) and this has helped to bring new questions to the fore and change the debate concerning what is sustainable in DWST and who should decide. All of this work represents a movement towards the construction of new ideals in surf tourism. It is not best to get in quick, surf, gaze at the locals, and get out believing that there is minimal environmental impact (when compared to other industries – i.e. mining or dynamite fishing) and assuming the dollars spent will trickle down to the surrounding community. DWST should be about figuring out how surfing can help people living in the communities where it happens meet the goals they set for themselves. No community has a clear and unanimous vision of what the future should hold, but having a dialogue concerning normative goals within the community, with all actors (users) involved, is better than outside entrepreneurs deciding the paces and style of development that will occur.

The convergence of the academic, historic, and journalistic work has helped to raise awareness about issues stemming from surf tourism in the developing world. This growing awareness, as many social movements do, has given birth to many social entrepreneurship ventures, NGO’s dedicated to sustainable surf tourism, and indigenous efforts to stave off wave resource overuse. Using ICTs, many of these organizations and resistance movements have spread the word about their respective approaches to change in DWST to more and more people (both surfers and non-surfers) to raise money, manpower, and awareness about the issues related to surf tourism. The argument
proposed here is that critiques lead to growing awareness which helps to give rise to movements as humans engage with one another’s ideas. It is a process whereby some try to put thoughts into practice, and a ‘surrounding gaze’ forms as shared norms and values come together and are spread with more writing, studying, and within the missions of new organizations and movements. Internet connectivity is critical to spreading all of this to more people in more places. The work of the early academics in the field, surf journalists, and film makers can be likened to what Lawler (2011) says about the Velvet Underground. She says that while only a hand full of people bought the Velvet Underground’s first album in the 1960s, they all started bands. *Lost Horizons* (2002), *In search of the Golden Pig* (1997), and scholarly articles about sustainable surf tourism might not have directly reached many people, but many of the people exposed to this content started organizations, which incorporated these ideals into their missions; and many other writers and scholars started to peruse their own research (this dissertation included) and representations of surf tourism in a more holistic manner. Word is now spreading on the internet, as greater consciousness about the issue is finding its way on to message boards, social media sites, twitter feeds, online articles and comments to surf tourism news articles. In this sense, ICTs have given a platform for spreading news about DWST and opened up avenues for intense dialogue concerning the proper conduct of surf tourism to the developing world. This is something people actively track online now and make travel decisions based upon. The jury is not out, and there is no universal understanding of what is the best approach to DWST sustainability, but the dialogue is
what is important to spur new models and improve on the old. ICTs have created an infrastructure for this dialogue.

Written and film critiques of DWST coming from different geographical contexts beginning towards the end of the 1990s, have helped to inspire a social movement for fostering sustainability in surf tourism – a movement which has taken material form in resistance movements, NGOs, social enterprises, and general online chatter. When aggregated, these entities form the conditions for a ‘surrounding gaze’ in DWST. This term is used to express the new possibilities for collective influence through “surrounding gaze politics” which can influence social phenomena and result in changes in practices through gathering digital public opinion around certain issues and events (Du, 2011; Warren and Zeng, 2013; Yee, 2011). This concept was born out of studies dedicated to transitions towards greater transparency in China with the introduction of social media spreading ideas of the people rather than having the media remain dominated by government propaganda or special interest groups. In China, digital public opinion has led to the ouster of corrupt politicians, pressures for better environmental and working conditions, as well as movements towards gender equality and the reform of unpopular policies (Warren & Zeng 2013). The surrounding gaze, in this sense, has been found to influence the offline world through netizens (citizens online) massing public opinion in the form of social media messages and online forums on defined issues and events (Warren & Zeng, 2013). Erasey and Qiang (2011) add that through blogs, social media messages, video clips, and online forums, activists can utilizes interactive relationships to
garner broader support for their causes. This can be done in many ways and internet connectivities continue to facilitate new options.

**Table 4.2  ** Surf-Related Non-profits & Surrounding Gaze Politics

<table>
<thead>
<tr>
<th>Governance Category</th>
<th>Organization Name</th>
<th>Location</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VST</td>
<td>WAVES for Development (WAVES)</td>
<td>Lobitos, Peru</td>
<td>Go to surf, stay to serve; benefit people and communities with surf travel</td>
</tr>
<tr>
<td>2. VST</td>
<td>Eco-Surf Tours</td>
<td>Galapagos Islands &amp; Canoa, Ecuador</td>
<td>Facilitates hands-on humanitarian, medical and environmental international volunteer projects to build a tourism industry primarily owned by native Ecuadorians.</td>
</tr>
<tr>
<td>3. VST</td>
<td>Waves of Optimism (WOO)</td>
<td>Gigante, Nicaragua</td>
<td>To facilitate community-driven development in Latin American surf travel destinations.</td>
</tr>
<tr>
<td>4. VST</td>
<td>Give and Surf</td>
<td>Bocas Del Toro, Panama</td>
<td>Volunteers providing sustainable empowerment to indigenous communities through education and community development.</td>
</tr>
<tr>
<td>5. VST</td>
<td>Holidays with Purpose</td>
<td>Nias and Hinako Islands, West Sumatra, Indonesia</td>
<td>Combines an amazing surf boat experience with giving back to the local community by going onshore to contribute to ongoing service projects.</td>
</tr>
<tr>
<td>7. VST</td>
<td>Black Star Development – Surf &amp; Impact Volunteer Program</td>
<td>Busua Beach, Ghana</td>
<td>Using volunteer surf tourism and homestays to help Ghanaian communities develop sustainable while elevating the standard of living and overall quality of life.</td>
</tr>
<tr>
<td>1. Local collective action</td>
<td>United Surfers and Lifesaving organization of Salina Cruz</td>
<td>Salina Cruz, Mexico</td>
<td>Local grassroots organization to regulate media exposure and surf travel to surf-breaks in Salina Cruz.</td>
</tr>
<tr>
<td>1. Voluntary Private Sector Initiatives</td>
<td>STOKE Certified (Sustainable Tourism Operators Kit for Evaluations)</td>
<td>International</td>
<td>Certification scheme to evaluate surf tourism operators based on 141 metrics adapted from the Global Sustainable Tourism Criteria as well as best practice sustainability standards in the surf tourism industry.</td>
</tr>
<tr>
<td>2. Voluntary Private Sector Initiatives</td>
<td>Surf Credits</td>
<td>International</td>
<td>Raise funds for and awareness about surf related non-profits around the world during high profile surf competitions.</td>
</tr>
<tr>
<td>1. Humanitarian and Environmental Organizations</td>
<td>Surf-Aid International</td>
<td>Indonesia</td>
<td>In partnership with communities and governments, works to prevent disease, suffering and death through educational programs and health promotion that aim to change poor health behaviors and reduce the risk form natural disasters.</td>
</tr>
<tr>
<td>2. Humanitarian and Environmental Organizations</td>
<td>A Liquid Future</td>
<td>Mentawai Islands, Indonesia</td>
<td>Help locals build capacity to participate in growing land-based tourism</td>
</tr>
<tr>
<td>3. Humanitarian and Environmental Organizations</td>
<td>Waves for Change</td>
<td>South Africa</td>
<td>Building Communities – Fighting HIV – Riding Waves</td>
</tr>
<tr>
<td>4. Humanitarian and Environmental Organizations</td>
<td>Walu International</td>
<td>Papua New Guinea</td>
<td>Dedicated to improving the hygiene and sanitary conditions in Papua New Guinea’s coastal communities</td>
</tr>
<tr>
<td>5. Humanitarian and Environmental Organizations</td>
<td>Waves for Water</td>
<td>International</td>
<td>To get clean water to every single person who needs it.</td>
</tr>
<tr>
<td>6. Humanitarian and Environmental Organizations</td>
<td>Reef Check</td>
<td>International</td>
<td>Empowering people to save coral reefs through research, education, and conservation</td>
</tr>
</tbody>
</table>
7. Humanitarian and Environmental Organizations

| Surf Resource Network | International | Supports local economies by raising funds for our partner organizations, facilitating the placement of volunteers within these organizations, fostering research and education, and developing sustainable projects to better the lives of individuals in the community. |

8. Humanitarian and Environmental Organizations

| Save the Waves Coalition | International | Dedicated to protecting and preserving the coastal environment, with an emphasis on the surf zone, and educating the public about its value. |

9. Humanitarian and Environmental Organizations

| Surfrider Foundation | International | The protection and enjoyment of oceans, waves, and beaches through a powerful activist network. |

Table 4.2 is a list of organizations that have sprung up to use surfing tourism as a conduit for positive social change in areas in the developing world with valuable wave resources. This list is not exhaustive, but presents organizations classified in different governance categories and is placed herein to represent the types of organization that have used strong online awareness spreading campaigns to support action-oriented organizations for a variety of local issues effecting DWST destinations. They typically work for community empowerment, public health, indigenous entrepreneurship, and environmental protection. These organizations often support one another and provide the staging ground for an awareness campaign build around an ethos that surf tourism in the developing world can be destructive, but with concerted efforts and community involvement, surf tourism can be a positive driver for economic, social, and environmental benefits. One example of how the online platform is used for awareness spreading is an approach WAVES for Development (the source of the case study that will
be presented in the following chapter) uses to raise funds to run the organization. Each volunteer tourist must submit a donation of nearly $500USD to work with WAVES, this on top of the weekly fees. WAVES encourages this donation to come from an online donation platform rather than coming directly out of the volunteer’s pocket. Figure 4.1 illustrates how one volunteer created a page and raised $800 dollars from 22 donors. This donation page more than likely reached many more than 22 people with information about the work the page’s creator was going to be doing and with knowledge about WAVES for Development and their mission. This donation platform does not only reach people willing to pay some money and be done with it. At least two of the volunteers present in Lobitos during my fieldwork learned about the organization from past a volunteer’s donation page. Every one of WAVES’ volunteers (Roughly 300 to date) creates a similar page (spreading awareness widely to each volunteer’s social network, raising donations, and soliciting more volunteers). As a result, WAVES’ website was visited by 16,000 unique viewers in 2011, up 4,000 viewers from the previous year (WAVES, 2011). This donation page method for raising funds has also been an approach adopted by Waves of Optimism (WOO) and many others to increase web traffic and volunteer participation. An organization called the Surf Resource Network has also formed to spread awareness about all surf related social ventures and surfcredits.org was created to solicit donations from surfers for these organizations (WAVES, WOO, and many others) in association with large surf events. These are all examples of how technology is used to create a surrounding gaze, but the next chapter will be more focused on assessing the effectiveness of the sustainable surf tourism governance model
WAVES brokers in Lobitos, Peru. This is part of asking the question of whether or not the ‘surrounding gaze’ leads to sustainable governance approaches to prevent surf resources from becoming overused and exploited.

Figure 4.1  Online Donation Platform for Awareness Raising (copied with creator’s permission from firstgiving.org)

4.3.3 Origins of Important User Variables in DWST

The framework presented in this section is best visualized as a schematic for mapping out the origins of the factors that often lead to self-organization in DWST. The user variables listed are consistent with the variables Blanco (2011) suggests are most significant in predicting the presence of voluntary sustainability measures in nature-based
tourism. Blanco (2011) borrows these variables from Ostrom (2007, 2009), but neither spend much time discussing how these variables come to be formed in a given context. For this reason, this work adds this vital component to the framework. Figure 4.2 shows how ‘surrounding gaze’ raises awareness about issues related to surf tourism globally. Historic exploitation, as well as, successful ventures are broadcast to traveling surfers and surf communities around the world through more and more internet communication channels. ICTs offer a way to spread ideas among users and help build norms in a way that is often taken for granted. This ‘surrounding gaze’ raises awareness about issues in certain locations and builds activist and community support for measures to mitigate issues associated with overdevelopment and exploitation elsewhere. If there is an over-used resource unit in close proximity to a young, but growing surf tourism location, there is a higher probability for action to prevent over-use and uncontrolled development, especially when the people living in a threatened area become cognizant that there is potential to spiral down a similar development path, and especially if the recreational carrying capacity of their surf-resource is small. The confluence of a surrounding gaze and nearby degraded surf-resource help to pave the way for governance systems to arise to facilitate self-organization. The approach to organization will vary depending on context, but context specific attempts do take shape to prevent economic leakage and to try to ensure sustainable, long lived resource benefits to local communities. This is consistent with Ostrom’s (2009) finding that self-organization is likely to happen when some stress is felt, but the situation is not yet out of hand (she says resource stress has a curvilinear effect on self-organization), but expands this idea to suggest technology plays
a more central role in the process. The goal is to add an appreciation for the way internet communication channels help to spread rules and norms and also knowledge of the DWST SES. This helps to encourage and support user variables, such as entrepreneurship and local leadership develop site specific governance strategies.

Figure 4.2 Origins of Important User Variables for Self-Organization

Figure 4.2 presents an interpretation of the factors that contribute to the formation of some of the most crucial user variables for self-organization. Proceeding downward, the figure then shows how these user variables lead to governance mechanisms. These governance approaches then feedback in the online surrounding gaze as word gets out
about them through direct user-to-user connectivity. The next section will briefly discuss different measures of self-organization before focusing on the case study on VST in Lobitos, Peru, as the first step to assess how one popular governance approach impacts the community where it operates. This discussion will help to highlight the landscape of governance efforts being employed to keep wave resource use sustainable. All of these mechanisms represent autonomous measures taken up by users to implement sustainable institutional frameworks. While this work will specifically focus on VST a governance strategy, it is important to also understand other approaches that are happening in order to get a better sense of what self-organization looks like in DWST.

4.4 Approaches to Self-organization in Surf Tourism

Once the surrounding gaze exposes issues associated with DWST, what options are available for attempting to reduce or eliminate the exposed negative effects? This work argues that there are four. The first is privatization and top down control of wave resources. This option was discussed many times throughout this work and is perhaps the most proscribed solution to come out of studies in this field. In this section, three general models of autonomous self-organization in DWST will be discussed – Local collective action (institutionalized localism), voluntary private sector initiatives, and humanitarian and environmental organizations (of which VST will be the focus). There are undoubtedly different measures out there, as well as, different ways to categorize the three approaches that will be discussed in this section, especially when it comes what will
be called institutionalized localism or local collective herein. In this explanatory study, however, these three models can surely convey an understanding of how the processes described in this chapter materialize in to real world efforts to reduce or eliminate the negative impacts of DWST. Online surrounding gaze and nearby degraded resource units are argued to bolster the user variables that are essential for creating and maintaining each of these approaches to self-organization. In this section, the goal is to describe what these models of self-organization look like by illustrating them with examples. Claims concerning the desirability or potential of these approaches to deliver on different aspects of sustainable surf tourism will not be made, though each could be analyzed in different contexts using the FASST approach that was introduced in Chapter 1 and will be used later in this study to examine VST in Lobitos, Peru. This section will highlight what is being done by users in a way that has not yet entered the discussion in the growing surf tourism field.

4.4.1 Institutionalized Localism/Local Collective Action (Salina Cruz, Mexico Example)

And surfing may be the sport of kings\textsuperscript{22}, but history has proven that kings are not necessarily nice people, being despotic, totalitarian and unreasonably psychopathic….But at least they keep the crowds down….If the coercive threat wielded by a few unreasonable crazies keeps a spot from being overrun and thrashed by the devouring herd, is that a bad thing in the long run? (Barilotti, 2003)

\textsuperscript{22} Reference to Jack London’s 1907 publication “A Royal Sport: Surfing in Waikiki” Published in 1907 in \textit{The Lady’s Home Companion} and then republished in 1911 in his book \textit{The Cruise of the Snark}. 
Localism is most often discussed in terms of the actions that are committed, as in the fistfights, vandalism, and the threats, in relation to what it symbolizes. Localism challenges surfing’s romantic image as a solitary, peaceful, and spiritual pursuit. While surfing has remained a symbol of freedom from repression for a century (Lawler, 2011:202), Westwick and Neusul (2013) say that “[s]urfers bumping in to each other in crowded lineups introduced the usual human traits of pettiness, greed and violence.”

Localism is depicted in almost every popular surf-themed film. In movies, such as *Blue Crush* and *Point-Break*, the protagonist is always victimized by the evil locals, but emerges triumphant due to their unwavering commitment to the ideals of surfing as an expression of freedom. The focus on symbolism should be no surprise given surf culture’s penchant for ideology.

This work, however, treats some manifestations of localism as complex governance strategies that represent local collective action. Localism has been a response to threats of outside intrusion almost as long as there has been people surfing. For this reason, localism can be seen as one of the oldest governance approaches put in place to prevent wave resource exploitation and overcrowding. Localism is tough to categorize because it can range anywhere from a few people banning together to make it difficult for newcomers (beating up people, painting discouraging graffiti, slashing the tires of outsiders while they surf), to large swaths of a community (i.e a group of entrepreneurs forming an association, or surf gangs) coming together to decide that deterring unfettered access is desirable and that acceptable strategies for dissuading surfers should be codified and implemented. Institutionalized localism refers to when the approach becomes a
significant force in conducting the conduct of surfers in an area and when powerful stakeholders facilitate the process.

Localism most likely originated in Hawaii when local surfers started to get fed up with the influx of the Haoli population (Walker, 2005, 2008, 2011; Westwick & Neushul, 2013). Surfers in Hawaii met in councils to discuss how disrespect, preventing surf colonization, and foreign exclusion should be handled. Foreign surfers were often beaten up, the surf media asked to leave, and professional surf contests were also disrupted. Localism, however, is not only about deterring outside surfers, it also has an element of establishing order at surf-breaks. Dasklos (2007) finds that localism was a part of the code guiding surfing in southern California from the beginning, he found that surfers had to learn certain rules and work their way up a pecking order before they were able to surf quality waves as early as the 1960s in Southern California. He laments how the old order established in one particular tight-knit surf community was being eroded by the inevitable oncoming train that he calls industrial modernity. He describes the mass newcomers to surfing as bringing, “[t]his new order reflected the larger social context of postindustrial America’s wealthier cities, an order earmarked by immediate gratification and a general disregard for the welfare of others” (Daskalos, 2007:171). He argues that localism is dying, but that it is about more than just the incidences of violence and property destruction that many focus on, localism was about maintaining order and respect.

The quote that opens this section from Barilotti (2003) is from in article called, “Localism Works,” wherein he defends certain outcomes of localism, but not necessarily the specific activities employed – in other words, the ends are just, but perhaps the means
are not always. While there is some writing that is apologetic for the rationale behind localism, the majority of commentary on the issue is vehemently opposed to the practice. In that vein, perhaps most famously, former pro surfer Nat Young wrote a book called Surf Rage, after nearly being beaten to death over a surf altercation in Australia, wherein he also suggested that the glory days were behind us, never to return. Basically meaning that a world with more surfers was a surf world with more conflicts and less simplicity.

In the context of developing countries, however, there is more at stake, there are also issues of ad hoc development not taking in to consideration environmental issues, cultural change, and economic benefits being siphoned off by foreign entrepreneurs. And although people being beaten up and their property vandalized over waves is abhorrent, Barilotti (2003) does bring up an important point that must be considered when examining the sustainability of DWST governance approaches. Can localism be sanctioned if it helps avoid the neoliberal development trajectory that has been very damaging and so common elsewhere?

Salina Cruz

Perhaps the most high profile instance of institutionalized localism as a form of local collective action being discussed presently is occurring in Salina Cruz, Mexico. Local surfers in Salina Cruz formed an organization, the Union of Surfers and Lifeguards of Salina Cruz Civil Association (SCCA), with alleged legal standing that establishes mechanisms for controlling surf media access to the area and also requires surfers to hire local guides to surf in Salina Cruz (Cianciulli, 2012).
For the purposes of this discussion, most of the information comes directly from a press release sent out by the SCCA, as well as, online periodicals written on the topic. User posts (40 total) on a web forum dedicated to surf travel in Salina Cruz from wannasurf.com, as well as, user comments (223) to an interview published with the SCCA’s leader on surflines.com. The publication of this particular interview (Cianciulli, 2012) received 36,833 unique viewers (as of 23 September 2013) and inspired more than 223 comments, making it one of the sites’ most viewed and commented on features. An unstructured phone interview was also conducted with Zack Plopper, the coastal and marine director of Wildcoast (an international coastal conservation organization), who has been in the area many times to surf and also to work on coastal preservation issues, to add in an appreciation for how this model is interpreted by an NGO operating nearby. This is not meant to be a formal case study, but to present the rationale for the SCCA and the policies they implemented from the perspective of one of its founders, as well as to gain a sense of what the dialogue surrounding this issues looks and sounds like in the ICT infrastructure so crucial to understanding DWST and governance.

To give a brief history of the SCCA, an article in Surf Magazine incited the local resistance to what they saw as the seeds of exploitation beginning to creep in to Salina Cruz. The article, published in November 2011 was called “The Life and Times of Salina Cruz: An Autobiography of a Pointbreak Sensation” and was meant to be a playful story written like a journal entry from the perspective of the wave itself. Perhaps to keep the author’s identity a secret, or to keep up with the creative concept that the wave had scribbled out this story, no human was attributed authorship. The article was written to
represent the wave in Salina Cruz as a self-conscious surf celebrity that just wants to
please the travelers and pros who come to surf the area. The article added that the wave
likes to show its best quality when the magazines and video cameras come to get footage
of pros surfing the area. This alone was offensive to the people living in the area, but the
article goes a step farther to criticize the local resistance movement that was trying to
organize before the article was published in its coda. The article says:

    We’ve all had bad experiences. Of course. Some delusional guy (and it’s always
    a man) thinks he ‘owns’ you and gets crazy protective. The whole thing is ugly,
    and selfish. It’s never me they want to protect (Unknown 2011:72).

This article sent Cesar Ramirez in to a frenzy. Cesar, was the first local to surf in Salina
Cruz. In 1991, some travelers showed up with a picture of the main point break at Salina
Cruz. Though he did not surf at the time, he recognized the area from the picture and
agreed to show the foreign surfers how to get there. The surfers decided to push Cesar in
to some waves and gave him a few pointers, as a thank you for showing them how to get
to the wave (Cianciulli, 2012). Cesar was hooked on surfing after this and began going to
surf as often as he could while at the same time introducing the sport to his family and
friends. When he started noticing surfers from farther north making some money
bringing surfers to the waves in Salina Cruz, Cesar and his brother David decided to set
up the first surf tour operation in the area. This started a trend and some others in the
area followed suit and opened up surf camps and hotels to cater to the growing interest in
surfing in the area. Prior to the article, Cesar and the other entrepreneurs tried to keep
order, they knew the surf magazines were making a good bit of money showing images
of Salina Cruz in the background of surfboard and apparel ads, but they accepted their fees as guides in exchange. The article set a new precedent in motion.

Cesar told Surfline.com that the article made him want to puke and that the particular section referring to the “delusional guy:”

[offended all the local surfers because we’ve been taking care of the place, cleaning the beaches, trying to keep it in order so it doesn’t become a circus. It gets more crowded every year but there is order. You can surf; you can get waves. It’s not like places up there (I don’t want to say the name). Here there is respect...the locals and guests share waves (Ramirez Quoted in Cianciulli, 2011).

Cesar rounded up the local surfers and entrepreneurs and together they hashed out a strategy to respond to the article. They decided that the media was making Salina Cruz look like an easily accessible spot that anyone could visit and do whatever they want. They worried the article would bring in an influx of tourists as similar articles and surf contests did in nearby areas so they decided to impose a media ban, disallowing anyone to capture video and images in Salina Cruz. As part of a knee jerk reaction to the article, Cesar emailed every contact he had in the surf industry and notified them of the media ban to the area. People could still come and surf, but they could no longer take pictures and video.

The surf media began to ask for clarifications and the entrepreneurs and surfers in the area, in response, got together and hashed out what they thought would be a more reasonable and practical approach to an outright ban. The current tourism policy in Salina Cruz goes as follows. The first step was the formal creation of the SCCA. This is a non-profit organization officially recognized in the city of Oaxaca and is comprised of 33 members. Most of which (16) work as surf guides or run surf camps, others are in the
navy, have a job at the nearby oil refinery, or have stores or restaurants in Salina Cruz (Cianciulli, 2011). This organization meets regularly to discuss matters associated with surf tourism development in the area. In a press release from SCCA to all interested parties, eighteen tenets are laid out. To summarize, the organization seeks to preserve the environment, prevent exploitation, localize surf tourism benefits, establish reliable and effective lifeguarding service in the area, control development, limit access to surf breaks, collect donations for the greater community, improve the road infrastructure, teach surfing to school children in the area, and help prepare the area for natural disasters such as hurricanes, floods and oil spills.

While these are lofty goals with a long run focus on sustaining the surf resource in the area, some of the on-the-ground practical steps to achieve this vision are where the controversy settles in. The first of such measures came in the form of an $800 USD (or the equivalent value of sanctioned donated equipment) as a fee to film or take photos of Salina Cruz. SCCA offers two ways around making this payment. The first is a local photographer can be hired to take the photos and video, or the foreigner taking the photos must have a valid work permit in Mexico. Secondly, all non-Mexicans, even if they do not want to take photographs, must hire a local guide to surf in Salina Cruz. Many times this is included in the packages to stay in SCCA member lodging facilities, but if independent surfers show up they will be stopped at the road entrance and forced to pay for a local guide or be asked to leave. The idea is to control crowds, ensure income for local business owners and photographers, and raise money for the needs of the community. In this sense, the SCCA can be seen as an organization built to manage surf
tourism in a way that benefits established local entrepreneurs by controlling entrance into the market and trying to profit from maintaining a low number of high paying tourists to the area.

As discussed throughout this work, there are three sub-variables under Ostrom’s (2009) user variable, leadership/entrepreneurship, norms/social capital, and knowledge of SES/mental modes and one sub-variable under the resource unit category, the presence of a nearby degraded resource unit, that are often present when communities self-organize to sustain surf tourism resources. Cesar became the leader of the push to self-organize for many reasons. For one, he owns a business in the area that profits from being able to deliver uncrowded surf to tourists, therefore, he is dependent on the resource, another important user variable. Secondly, the number of users was beginning to grow, threatening his business. Also, Cesar came to embody the significant leadership variable because surrounding gaze politics made him aware of the issue of surf tourism and exploitation and because he read about and witnessed first-hand the changes that occurred at unmanaged destinations nearby, such as Barra de la Cruz and Puerto Escondido. Knowledge of the DWST SES helped Cesar and the SCCA understand the relationship between the surf media and tourism exploitation and thus they had the wherewithal to monitor the surf media and respond when they felt their respect had been breached. The surrounding gaze (Hu, 2011; Warren & Zeng 2013) helped to spread information about the DWST SES and norms associated with sustainable surf tourism, in a way that combined to inspire leaders to set up operational rules as a governance strategy to protect surf resources in Salina Cruz from exploitation.
This governance mechanism is very controversial and is most often referred to as a Mexican surf cartel or a corrupt mafia type of resource allocation method. The founders argue that by controlling and profiting from the historically exploitative surf media and pressuring surfers to hire local guides, that sanctioned local entrepreneurs can receive healthy wages by providing quality uncrowded surfing conditions off in to the future while also establishing an infrastructure for keeping the coast clean and raising funds for assisting indigenous communities in this culturally diverse and economically depressed coastal area in Oaxaca. This topic is crucial to the study of DWST because localism is as old as surfing and this represents a form of local collective action that may spread considering growing awareness of historic exploitation and the presence of many degraded surf resource units compounded with a constantly growing surf tourists population in the developing world. Plopper said that the Salina Cruz model may be spreading to areas farther north around Huatulco, where locals are beginning to aggressively deter other entrepreneurs from bringing surfers to ‘their’ local surf-breaks and also trying to force independent travelers to hire local services to surf in these areas (sometimes with threats of violence).

Barillotti (2003) says, “[i]creasingly, many surfers are looking at ways to transform neurotic doggy-style localism into evolved stewardship of our shared coastal legacy” and perhaps that is what is happening in Salina Cruz. Many people commenting on the Ramirez interview shared stories of having cars windows broken, being asked to leave Salina Cruz with machetes, and being threatened in the water until they got out. There is no doubt some doggy-style localism going on in Salina Cruz. For the purposes
of this work, however, discussing the SCCA is meant to illustrate what institutionalized localism looks like and how it can operate as a governance strategy in DWST. As Plopper indicates, this approach seems to be spreading, and given the longevity of localism in surf culture we should expect this process to evolve with changing TES dynamics at the societal level. This section is meant to bring attention to one example of local collective action and encourage more thorough review of local efforts to control resources in other areas.

4.4.2 Voluntary Private Sector Initiatives

In this work, much time has been dedicated to the consuming surf breaks discourse and topics such as roving banditry. Within these topics, entrepreneurs can look like evil villains, exploiting the periphery and moving on after a resource is degraded. Most entrepreneurs, however, do not want to degrade the surf resources their businesses depend upon, they move on because they have to, not because they planned to. They fall in love with the place where they set up their surf tourism enterprise, invest a great deal of their savings, and want to see the area thrive in a way that offers a return on their investment, but that also retains the integrity of the area that attracted them and their guests in the first place. In short, surf tourism entrepreneurs do not intend to degrade resources and move on to new areas once this happens, however, the free market approach to tourism development often creates the conditions for many well-intentioned entrepreneurs to collectively cause serious cultural and environmental damage to local communities.
The surrounding gaze concept again is critical to understanding user self-organization in the voluntary private sector context. Firstly, the gaze can spread knowledge about the SES and help surf tourism entrepreneurs become aware of the way their collective activities negatively impact local communities and their bottom lines. Many businesses are finding out that environmental practices positively impact customer satisfaction and loyalty (Kassinis and Soteriou, 2005) and spreading this knowledge incentivizes adoption of voluntary measures. The surrounding gaze also acts in a watchdog capacity (Warren & Zeng, 2013) and puts pressure on firms to follow sound social and environmental practices (Sirakaya, 1997) or risk being exposed on the internet. In short, knowledge of the tourism resource problem, information spreading about socio-environmental initiatives improving profits, and fear of being publically shamed for harmful practices, collectively inspires many entrepreneurs to employ agreed upon governance strategies to prevent resource exploitation and overuse. Blanco (2011: 41) says the emergence of voluntary agreements in the tourism industry is consistent with the broader finding that users of CPR frequently develop their own institutions, operating without formal governmental jurisdiction, meaning tourism “stakeholders can change the institutional context in which they are embedded, without needing external imposition.” When some leaders in an area decide to adopt voluntary compliance measures, this puts pressure on other firms to follow suit and this can lead to comprehensive governance strategy.

Blanco (2011) reviews many nature-based ecotourism labels and certification schemes. Many of these general approaches have been employed by entrepreneurs in
surf tourism destinations in the last decade as well. One such efforts is the adoption of the Blue Flag program (www.blueflag.org). This program certifies beaches based on thirty-two criteria found in four general categories: environmental education and information; water quality; environmental management; and safety and services. For any beach community to receive this designation, entrepreneurs must collectively agree to work together to achieve these standards. Measure include signage about the program, meeting water quality standards, handicapped beach access, recycling programs, and many others. The program is spreading throughout Costa Rica, and in many places the process has been driven by surf tourism entrepreneurs. One example of this being Mal Pais, Costa Rica, where surfers, entrepreneurs, and surfboard manufactures came together to build up support for earning the Blue Flag designation and also for initiating compliance mechanisms. Example of this are abound, surf entrepreneurs are beginning to desire the presence of mutually agreed upon tourism practices that help to maintain the viability of the tourism resources their businesses depend upon.

Coming out of the academic field dedicated to surf tourism, which argues that surf-tourism is a unique form of travel, researchers at San Diego State University’s Center for Surf Research (CSR) have developed a partnership with members of the surf industry to develop a new certification scheme tailored specifically to the surf tourism industry. They call this effort STOKE\textsuperscript{23} Certified, which stands for Sustainable Tourism Operators Kit for Evaluation. STOKE’s mission is to ensure “comprehensive examination of surf resort operation and management, which is key to delivering accurate

\textsuperscript{23} Stoke in surf vernacular refers to the feeling a surfer gets when riding a wave.
and transparent data to traveling surfers, neighboring communities, and resort
management” (stokecertified.com). Inspired by the Global Sustainable Tourism Criteria,
which were created in the UN system to respond to the global challenges of poverty
alleviation and environmental sustainability outlined in the Millennium Development
Goals, CSR has developed 141 criteria filed into five categories: sustainable
management; social and economic impact management; cultural heritage impact
management; environmental impact management; and surf resource conservation.
STOKE was established in 2014 and the only resort to become certified so far is the
Mantanivusi Resort in Fiji. In relation to surf resource conservation specifically, this
resort has installed mooring systems for boats at popular surfing reefs to prevent anchor
damage to coral reefs, began a coral reef planting program, and negotiated with local
fisherman to establish a fishing exclusion zone (Mantanivusi Resort, 2014). In an
interview with the director for the Center for Surf Research, Jess Ponting, he said other
resorts in Fiji, Panama, Costa Rica, Indonesia, Hawaii, the Maldives, and Liberia have
started management plans with intention of earning the STOKE certification for their
enterprises.

Many private sector certification schemes have been criticized for green washing,
meaning they want recognition and economic benefits from appearing to be ecologically
friendly, but do not put in place a concerted effort to actually do so. Private sector
certifications have also been criticized for being elitist because it is typically wealthier
enterprises that can afford to dedicate resources to sustainability plans and brand
themselves accordingly. These issues can and should be examined in the context of surf
tourism as well. Each voluntary private sector initiative should be studied in terms of
their ability to deliver sustainable outcomes and not only by what they say on paper. The
goal of this section, however, was to illustrate voluntary private sector initiatives as a
governance response initiated by leaders in response to a growing surrounding gaze in
surf tourism. It is discussed in this chapter as another alternative to top down government
management and privatizations schemes. Voluntary compliance measures represent yet
another model of user self-organization that has been developed and is spreading in the
internet surf era.

4.4.3 Volunteer Tourism: NGO Model of Community Self-organization

VST is spreading quickly, especially across Latin America, in response to a
growing surrounding gaze and to fill in for the lacking government response to DWST
issues. One study discusses the theoretical potential for VST to lead to alternative
development models in surf tourism (Wearing & Ponting, 2009) but there has yet to be
research conducted on how this governance approach impacts localities. This chapter
will discuss VST as another approach to user self-organization intended to reduce or
eliminate the negative impacts associated with DWST. After discussing this general
model and providing a few examples, the next step will be to outline the methodology for
conducting the first analysis of the impacts of VST operating at the community level.
**Volunteer Tourism Context**

The institutional roots of volunteer tourism (or voluntourism) can be traced back to the British Volunteer Service Overseas (VSO) and the U.S Peace Corps, established in 1958 and 1961 respectively (Vrasti, 2011). Even though many returning Peace Corps alumni would flip out if someone called them volunteer tourists, this program helped to establish the idea, framework, and what has come to be considered the societal benefits of the modern, more expensive, and shorter term cousin called volunteer tourism (or voluntourism) in this work. While the antecedents of volunteer tourism set up programs to “explore the frontier of industrial modernity for charity and self-betterment” with practices informed by “thinly veiled imperialist motivation and Eurocentric beliefs,” volunteer tourism “espouses a more recent cosmopolitan vision,” with an underlying “multiculturalist appreciation for cultural diversity, a romantic reverence for nature and tradition and what seems to be a genuine desire to help but also learn from other cultures and people” (Vrasti, 2013:1). Volunteer tourism can also be seen as a niche form of ecotourism and therefore part of a transition in the way international financial institutions continue to support ‘new’ forms of tourism following the failed structural adjustment period, which favored financing large infrastructural projects with the intention of using the capital infusion to shock nations out of poverty (Mowforth & Munt, 1998; Honey, 1999). Regardless of individual motivations and volunteer tourism’s function as a tool of contemporary international development, the phenomena is growing and spreading. In 2009, 1.6 million people considered themselves volunteer tourists and they spent between 1.6 to 2.6 billion dollars in total that year (Benson, 2011). Not exactly a small niche
industry, it is now considered the fastest growing sector of the travel industry (Guttentag, 2009: 538). Even large online travel companies such as Travelocity and Cheaptickets are packaging and offering their own volunteer tourism opportunities (Vrasi, 2013).

Voluntourism is theoretically about tourists moving beyond gazing (Urry, 1990) at locals – daydreaming, fantasizing, and maintaining a trivial understanding of their daily lives – and moving towards truly experiencing and getting to know a new culture while giving back (Alexander & Bakir, 2012). Wearing (2001) defines voluntourists as those who “volunteer in an organized way to undertake holidays that may involve the aiding or alleviating of the material poverty of some groups of society, the restoration of certain environments or research into aspects of society or environment.” In theory this all sounds like the illusive win-win, where impoverished communities get help from young educated folks from industrialized countries. The tourists learn valuable and marketable social skills and the enterprises who set up these opportunities make money, some of which stays within the local community. Despite the often suggested mutually beneficial nature of volunteer tourism, the vast majority of the research in this field focuses on the volunteer, their motives and outcomes, and highlights the prospect of individual growth through participation in volunteer projects (Ingram, 2011).

The current state of research in the growing interdisciplinary study of voluntourism suggest that volunteer tourism organizations have the potential to act either as “catalysts for positive socio-cultural change or facilitators of neo-colonialism and dependency” (McGehee, 2012: 86). Those who argue in favor of volunteer tourism’s positive potential tend to focus attention on the new economic opportunities it creates for
local people, as well as, the positive benefits of cross cultural communication (Wearing, 2001; Wearing & Neal, 2001; Wearing & Ponting, 2009). The more critical take on the emerging industry is that this form of tourism tends to reinforce stereotypes of cultural superiority (Ingrim, 2011) and that it is just another mechanism whereby western ‘ego-tourists’ (Mowforth & Munt, 1998) continue to get the cultural capital (Bourdieu, 1984; Cohen, 1979; Vrasti, 2013) and CV credentials (Mowforth & Munt, 1998; Vrasti, 2013) they desire at the expense of the local population. This is essentially an argument that volunteer tourism represents a new veiled form of the same old exploitative tourism model.

In most cases, organizations and the outcomes they facilitate may not fall neatly on one end of this dualism (angelic or evil), but this is the line of inquiry that leads to the omnipresent and important question as to whether volunteers and organizations offering volunteer tourism truly ‘make a difference’ in the local communities where they operate (Ingram, 2011)? Some scholars in this field argue that this question has not been adequately answered in most contexts because there has been a lack of focus on “hosts, their needs, and the impacts and outcomes for those both directly involved in volunteer tourism projects, as well as, of the wider community” (Ingram, 2011: 215).

*Volunteer Surf Tourism (VST) Context*

Wearing and Ponting (2009) do make a case that volunteer surf tourism can, at least theoretically, challenge the dominant neo-colonial surf tourism development path. They suggest the VST enterprise, Holidays with Purpose, operating in the Hinako Islands...
off central west Sumatra, Indonesia, encapsulates an approach of “re-presenting tourist spaces and allowing for greater possibilities and access to new identities of host and tourist to develop reflexively” (Wearing & Ponting, 2009: 263). The premise of this chapter is that when surf tourists are directly and physically involved with assisting host communities in overcoming health and economic challenges they gain a more realistic understanding of tourist destinations and can then help to “re-present” local realities in a way that challenges the perfect wave discourse emanating from the surf media. Wearing and Ponting’s (2009) work was not a case study, but a theoretical justification for the potential of VST to create the conditions for new possibilities in DWST. In the next chapters, the goal is to test Wearing and Ponting’s (2009) hypothesis that VST has the potential to facilitate sustainable surf tourism with a VST case study in Lobitos, Peru.

This section, however, will be devoted to discussing volunteer surf tourism as a governance approach initiated by Western NGOs, in association with local communities, in response to historic issues with un-managed DWST growth. VST is argued to be a model of self-organization even though these enterprises are typically set-up and incubated by surfers from industrialized countries. Despite the outsider origins of most volunteer tourism enterprises, this model still represents “users” coming together to correct for the market failures typical of most open access resource regimes. Volunteer tourism, in this sense, is in concert with Ostrom’s (2009) arguments that users of CPRs do self-organize to initiate governance mechanism, and that the “tragedy of the commons” is neither inevitable nor only potentially mitigated by levying clear and secure property rights to the resource in question. Volunteer surf tourism can be seen as inspired
in most contexts by a confluence of factors. In most cases, as will be shown, the presence of a neighboring degraded resource unit mixed with surrounding gaze politics, which helped to create user rules and norms, can be said to have inspired user action to take the form of this unique social enterprise. This discussion is borrowed from Figure 4.2 and is offered again here to drive home the idea that the online surrounding gaze, coupled with the presence of a nearby degraded resource unit, helps to give rise to the user variables Ostrom (2009) argues are most influential to inspiring CPR self-organization, and Blanco (2011) suggests are also most apt to predict voluntary environmental initiatives in nature-based tourism.

The surrounding gaze, is again, not a static concept and is party created through volunteer tourism enterprises trying to fulfill their missions (which are almost unanimously to help insure local and sustainable benefits from DWST) and by the process of these organizations spreading information about their causes to raise money and enroll more voluntourists. These initiatives contribute to the surrounding gaze that new users will find themselves situated within as they make decisions about developing world surf travel. To give perhaps a simplistic example, when any surf tourist thinks about traveling to Peru and begins to search for lodging and information about surf breaks, they typically see a lot of advertisements for surf travel packages that trump up the quality of the waves and how respected these providers are at getting people the most waves possible. This same would-be traveler to Peru may also come across WAVES for Development (WAVES), a non-profit volunteer surf tourism organization, either by finding their website in the google search, or by reading a posting from alumni in online
surf forums such as Wannasurf.com, or perhaps, they are linked up on Facebook with someone who is volunteering and catch a glimpse of a post in their newsfeed. At least two of the volunteers I interviewed found out about the organization through Facebook. Even if they do not choose to stay with or work with WAVES and go another route, the wavetopia narrative will be challenged as they will have received information that hardship is prevalent in the northwest region of Peru and that some people are trying to do more than just surf and leave. In this sense, each VST organization has a part to play in challenging fetishized content in different parts of Latin America especially.

WAVES is one of the first volunteer surf tourism operations, with its initial pilot program beginning in 2007. Perhaps no coincidence that this organization and many others such as Waves of Optimism (WOO), in Gigante Nicaragua, Surf for Life (SFL) in Puerto Viejo, Costa Rica and El Cuco, El Salvador, Eco Surf Volunteers (ESV) in the Galapagos Islands and Canoa Ecuador, Holidays with Purpose, Indonesia and the Kwepunha Surf Retreat (KSR) in Robertsport, Liberia have all sprung up between 2009 and 2011, around the same time a great deal of academic work on DWST was being published. As mentioned prior, this can been argued to be part of the response to some of the initial critiques of DWST coming out of films and magazines in the early 2000s, a shift in international development thinking, and VST organizations being inspired by one another to open operations in different areas with a perceived need (perhaps this is also tied with the profitability and popularity of this niche industry).

This list of VST organizations is not exhaustive and there are many volunteer tourism brokers such as “All Africa Volunteers” that offer learn to surf and give back
opportunities, such as the one currently on offer in Jeffery’s Bay, South Africa, as just one of its many volunteer tourism sites and themes. This “learn to surf and serve” in Jeffrey’s Bay offer can even be selected as part of a volunteer vacation tour, where it would be just one stop in a service/vacation tour of South Africa. The All Africa Volunteers type volunteer surf tourism program is likely to grow as large wholesale volunteer tourism operators seek to leverage the popular desire for their demographic target audience (upper middle class students ages 16-25) to learn how to surf in conjunction with the growing societal requisite to go abroad, serve, and experience other cultures. There are also short term surf/study abroad courses like what is offered by Groundswell Educational Travel (Figure 4.3), where college students can receive credits for traveling to surf destinations such as Bocas del Toro Panama; Gigante, Nicaragua; Huanchaco, Peru; and Nosara, Costa Rica and learn about cultural interactions in tourism, learn to surf, and also participate in established volunteer programs. I mention both of these emerging surf/travel/service opportunities to help paint a comprehensive picture of what this growing landscape looks like, but neither will be the focus of this work. This work will instead focus only on dedicated VST non-profit organizations.
Figure 4.3  Groundswell Education Travel – College Credits, Volunteering, and Surfing (www.groundswelltravel.com)

*VST Landscape in Latin America*

Difficulties in managing and studying surfing tourism in remote areas include the mobility of surf tourists and the isolated and vast distribution of destinations (Hugues-Dit-Ciles, 2009). The middle column of Figure 1.3 shows 32 developing world countries with more than 20 surf-breaks uploaded to wannasurf.com. Forty-five percent of these countries are located in the Latin America and Caribbean region. In Martin and Assenov’s (2012) meta-analysis of surf tourism literature they found that there has only been six studies (including scholarly peer-reviewed journals, industry reports and grey literature) from three developing countries in all of Latin America (Costa Rica, Mexico, and El Salvador) (see Table 1.3). Of these, a few have yet to even be translated to
English. This compared to 26 studies in Indonesia. Indonesian case studies have been integral to developing an understanding of the DWST phenomena and also to originating the FASST model that will be used to assess sustainable surf tourism in this work. For DWST research to grow and to broaden general knowledge in the field, more research needs to be conducted in Latin America, given the high volume of surf-breaks in the region and the longevity of U.S surf travel to the region. This is why this work starts from general ideas developed about DWST and works its way down to examine strategies being implemented in Latin America to try to prevent the deleterious impacts historically associated with DWST, including efforts to try and help local communities benefit from their wave resources. After deciding to research self-organization to prevent resource collapse, as opposed to management and policy models proposed in Indonesia and Fiji, preliminary research and site visits indicated that Latin American was the most understudied region with the most dynamic examples of wave resource self-organization.

The first model of self-organization that became apparent when researching tourism in Latin America was VST. There are examples of VST organizations operating in Nicaragua (Waves of Optimism – WOO), Ecuador (Eco-Surf Volunteer – ESV), Costa Rica (Surf for Life – SFL), El Salvador (SFL), Panama (Give and Surf) and Peru (Waves for Development – WAVES). All attempt to foster sustainable surf tourism through cross-cultural interaction and building entrepreneurial skills in the communities they are operating, in order to try to prevent issues associated with surf tourism exploitation. Extensive internet research was conducted on each organization. All of these non-profit VST organizations state directly in their mission statements that they seek to empower
community members to guide the future of development in the surf tourism destinations in which they operate. There is some overlap, but most of these organizations have different approaches and facilitate different projects to help to achieve this broad mission.

In order to discuss volunteer tourism broadly, all four websites for each of the four focus VST NGO’s were thoroughly reviewed (along with annual reports from each organization, where applicable). News articles that mentioned any of these organization or that included interviews of program founders, employees or alumni were also reviewed. In addition, open ended interviews were conducted with the directors of all organizations, with the exception of ESV

*Waves of Optimism (WOO)*

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**Mission Statement**  
To facilitate community-driven development in Latin American surf travel destinations.

**Vision**  
Project Wave of Optimism firmly believes that international surf travel has a profound impact upon the local populations of Latin American surf destinations. However, few coordinated efforts have attempted to use this opportunity to support locally-lead development initiatives. In light of this, Project WOO commits to work in the area of critical overlap between surf tourism presence and host community efforts to improve their quality of life. *Through our on-site, hands-on approach, we strive to:*

1. Build positive relationships within the community
2. Establish ourselves as a proactive ally of the local people
3. Encourage local empowerment, raise awareness of local issues, and support local management of resources
4. Promote local participation and leadership in the identification, planning and execution of community development projects
5. Provide technical guidance and material support for local development initiatives

Figure 4.4 WOO – Mission and Vision (Copied with permission from www.projectwoo.org)
Interestingly enough, WOO founders Nick Mucha and Adam Monaghan were Peace Corps Volunteers when they were inspired to start this VST NGO, which began operating in Gigante, Nicaragua in 2007. As we will see, WAVES’ founder, Dave Aabo, was also a Peace Corps Volunteer in Peru when he decided to start WAVES. The origins of the two original VST organizations operating in Latin America, therefore, reinforce the direct linkage between the Peace Corps and volunteer tourism. This linkage could also support the idea that the shift in development thinking within different international aid agencies plays in to the surrounding gaze concept discussed in this work and helps to give rise to VST in different locations. Mucha’s quote helps to illuminate the thought process behind starting WOO:

> When we first traveled to Gigante on a surf trip in 2004, we found a village living in abject poverty. But, we could see it was on the verge of being discovered by the surfing community, leading to a lot of land development and tourism. As surfers, we’re able to bring all these forces together and hopefully have a positive impact (Wengrich, 2013)

WOO’s founders were not just speculating that large scale development was on its way to Gigante. To get there, they traveled through San Juan del Sur and literally saw the potential for Gigante’s future in this once small fishing town turned Nicaragua’s coastal tourism epicenter (Romero, 2012). San Juan del Sur has been characterized as an area experiencing tourism resource overuse (Hunt, 2011) but only one video attributes tourism growth to the area with surf tourism directly (Thiemann, 2013). To discuss surf tourism to Nicaragua and WOO properly, it must first be mentioned that Nicaraguan tourism only re-emerged in the early 1990s following decades of political instability and civil war. The decades of conflict also sheltered Nicaragua from some of the first coverage of
surfing in Central America, published after a 1974 trip to El Salvador, Costa Rica, and Panama by Surfer Magazine contributors Kevin Naughton and Craig Peterson (Calish, 1985). Tourism in the era following the 1989 peace accords in Nicaragua, however, has been moving in a different trajectory. The Nicaraguan government has been actively seeking to tap into the market demand for nature tourism and has implemented many incentives and tax breaks, including exoneration from importation, sales, materials, equipment, vehicle and property taxes for both foreign and Nicaraguan individuals and businesses involved in tourism-related activities (Hunt, 2011). Not surprisingly, tourism arrivals to Nicaragua have increased 250% between 1997 and 2009 and San Juan del Sur has received a great deal of this growth, including the passengers of 42 cruise ships that disembark there annually. San Juan del Sur’s population increased from 6,891 (mostly small scale fisherman) in the 1970s to 16,694 in 2004 following a decade of tourism support policies (INIDE, 2008). This growth has sparked more than 70 tourism developments along the area’s 40 kms of coastline during this period, which led to disappearance of available coastal real estate and the lowland forests that once fringed the coast (Hunt, 2011). Hunt (2011) argues that this tourism boom and its associated environmental issues has not led to poverty alleviation and many residents of San Juan del Sur were forced to move inland and remain in abject poverty, lacking potable water and electricity. Hunt (2011) also argues that without changes in policy and tourism planning in Nicaragua, the same model of development which has failed the original community of fisherman and farmers in San Juan del Sur will spread to other coastal areas.
WOO was set up to help Gigante not end up like San Juan del Sur, where Hunt’s (2011) research shows that tourism development has increased income inequality and is outpacing measures to treat pollution and maintain some semblance of community. This is further evidence that nearby degraded resource units can help to not only place development pressures on other nearby coastal areas, but also give rise to new governance mechanisms. WOO’s goal (Figure 4.4) was to build capacity in the community in Gigante to use the pending surf tourism boom spreading north from San Juan del Sur as a driver for community driven improvements in quality of life. Gigante, merely 35 km north of San Juan del Sur, is comprised of a community with 80 percent of inhabitants reliant on fishing income, which ranges between $100 and $200 USD monthly depending on fishing yield (WOO, 2012). WOO, for example, after initial consultations with the community in Gigante in 2008, found that a major concern for locals in the area was access to education, which was said to be hampered by the lack of convenient and reliable transport to secondary schools in Tola (14.5kms away) and Rivas (26kms away). Monaghan said that after the community established this need, WOO mobilized support to finance a locally run transportation enterprise to meet this community desire. WOO was able to get together the $40,000 USD necessary to levy a micro loan to the local community to buy a bus, outfit it to safely seat as many passengers as possible, advertise the routes, and run reliable services with local drivers. After conducting a community census in 2011 following the initial 2008 data gathering effort, WOO found that this bus service has led to an 81% increase in students actively receiving a high school education and that the bus has become the primary mode of transport for 79
percent of the community (WOO, 2011). Building on the success of the bus project in Gigante, WOO has gained trust and more community buy in. The 2011 census that revealed the community bus usage figures also revealed the community’s desire to construct a community health center – 80 percent of the community found this to be the most pressing need in the community (WOO, 2011). WOO has since raised nearly 100,000 USD and will soon break ground on the construction of this facility and ensure it addresses community health concerns. Mucha said of these efforts, “Community-driven change can be a slow and frustrating process at times, but we’re firm believers that the process of a community working together to achieve a need is actually more important than the project itself (Wegrich, 2013).

Volunteer tourism is a big part of WOO’s mission. Volunteers raise funds and awareness for the projects listed above. For one, WOO charges $300 per week for a combined VST experience and homestay accommodation, which goes directly to the homestay providers and also to projects. Volunteers also raise awareness for funding campaigns such as the health center listed above. Volunteers also help organize beach clean-ups and teach English and surf lessons to help foster mutually beneficial cross-cultural interchange. The surf lessons are a part of Woo’s youth surfing program. They have even built in a good behavior caveat for board use, insisting that all students who attend weekly beach clean-up gatherings and have good school attendance will have access to surfboards. This has helped surfing to become a healthy after school program in Gigante and the organization’s founders believe this will help build capacity for entering the surf tourism industry.
In short, WOO was set up in a coastal surf tourism destination beginning to experience resource stress brought on by the overuse of nearby surf resource units. WOO’s projects can be seen as a governance strategy to broker interactions between surf resource users and the resource units. Instead of doing nothing and allowing for unfettered development as has been documented in San Juan del Sur, WOO hopes its projects will raise awareness about the surf tourism and development issues, encourage sustainable surf resource use in the community, and build capacity for the community in Gigante to dictate the terms of change and decide how the community will benefit from growing tourism receipts.

Eco-Surf Volunteers (ESV)– Canoa and Isla Isabella, Ecuador

Figure 4.5 ESV – Mission
From figure 6.3 it is clear that ESV has similar aspirations as WOO. ESV is set up to provide volunteer opportunities (mostly teaching English and contributing support for combating public health issues) as part of a mission to get out in front of potential increases in tourism receipts and to help support local ownership of enterprises. ESV has established entrepreneurship programs for locals living in the area and also a college fund to help graduates from their program attend Ecuadorian universities, in hopes that this will help empower locals to participate in and control the development path in the town. ESV charges the most out of the VST organizations reviewed for their programs and seems to be catered more towards beginning surfers. ESV charges $2,695 for ten days (not including international air travel) for their Galapagos trip and nearly $1,000 per week for their Canoa, Ecuador itinerary. Rather than having individual long term volunteers, ESV focuses on shorter trip itineraries and group enrollment. These itineraries involve visits to different schools and community organizations, as well as, surf sites and instruction. This model is different from WOO, which prioritizes long term volunteers and revenue from donations, in that ESV offers short term surf package holidays with brief visits to participate in established volunteer programs.

**Surf for Life (SFL) – Puerto Viejo, Costa Rica & El Cuco, El Salvador**

SFL is indicative of yet another VST model in Latin America. SFL focuses on school construction and employing teachers to staff the facilities they construct. In an interview with Alex Fang, one of the co-founders, he said he felt the key to sustainable
surf tourism was education and that constructing schools will have far reaching benefits. Including helping students to learn English and entrepreneurial acumen, as well as, the importance of environmental protection and community. SFL prides itself on building schools and easing access for people to get to them and get enrolled. They tend to favor groups of volunteers coming at the same time to work on the construction and surf in their free time. Fang says that their model allows groups to bond, surf, and give back to the communities where they go on holiday. Volunteer surf tourists with SFL must raise $1,850 (not including airfare) to work with this organization and the funds go directly to building materials, local employment and staffing. This organization works on construction from start to finish, but then moves the majority of its efforts to new locations. They have built schools in El Cuco, El Salvador and Puerto Viejo, Costa Rica, and plan to construct a school in Manzanillo, Nicaragua.

The school they recently completed in El Cuco, El Salvador can be said to be a part of the goal of avoiding the development model occurring in El Tunco, El Salvador. El Tunco, Latorola (2011) says, has rapidly succumb to neoliberal reforms following the formal end of the El Salvadorian Civil War in 1992, and she suggests this has led to local people in the area becoming a source of cheap labor for the self-serving foreign owned surf tourism operators (increasing inequality), and also has led to a decreased role of the state in providing social welfare programs. SFL believes that educating people who once lacked access in El Cuco can help the population become better equipped to participate in the surf tourism industry and direct the development path. This model focuses on
providing infrastructure utilizing short-term volunteers for funding and for labor on construction projects.

4.5 Applying Conceptual Framework to Lobitos and Methodology

Given the conceptual framework outlined for discussing surf tourism, technology, and self-organized governance in this chapter, there has yet to be research conducted on any of these development. There has been virtually no research done on how any of the three broadly categorized approaches to self-organized governance highlighted impact actual localities in the developing world. To move towards a better understanding of how, or if, such efforts facilitate sustainable institutional frameworks in the communities where they are present, the next step is to offer an exploratory case study one such effort in one location.

A case study of Lobitos is constructed in three basic steps. The first is to present the regional context that situates Lobitos and to discuss the general nature and overall development of surfing tourism in Lobitos. The second step is to elucidate the processes that led to the creation of WAVES as a self-organized governance model in Lobitos and to examine the way the organization operates. The final step will be analyze the extent to which WAVES is able to facilitate achieving the normative goals outlined in the FASST framework for assessing sustainable surf tourism. The methodology for undertaking this study will be outlined in the following sections. The goal is ultimately to apply the
theoretical framework proposed in this work to a real world case study in order to uncover what the findings can contribute to knowledge in the growing DWST field.

WAVES was selected because of its potential to be a paradigmatic case study. A constant struggle when studying DWST as its own field of study has been answering how it is different from other forms of nature and adventure tourism. When you look at a large urbanized tourism center like Bali, presently, it is difficult to suggest which issues can be directly attributed to surf tourism and which are more general in nature. What set WAVES a part from other VST operators reviewed earlier is that it operates in Lobitos, Peru, a coastal desert riddled with oil extraction derricks, on and off-shore, and virtually no other forms of tourism present besides surf tourism. Lobitos is almost unbearably windy and its water is also chilled by the Humboldt Current causing wetsuits to be required for swimming and surfing almost year round. In short, Lobitos is not a place where international beach tourist can sit under coconut trees, suntan, sip drinks, and go for casual dips in the ocean. This was revealed in an initial interview with the organization’s founder, Dave Aabo, and was quickly corroborated during my field visit. Therefore, Lobitos was chosen as a site to study DWST specifically because it represents a place where other forms of tourism, potential activities, and pressures are not as present as in other locations that have VST and also appeal to other types of nature and adventure tourists. Lobitos as a research site, therefore, offers natural controls for a dedicated DWST study. The methodology for constructing this case study and analyzing the sustainability of this governance model will now be discussed.
4.5.1 Introducing a Case Study as Part of a Blended Methodology

Case studies serve as the most valuable tool for guiding the future of tourism; they offer us foresight into the possible peaks and pitfalls of tourism and help work out current issues of debate (Godde et al., 2000: 20).

The case study is such a pervasive methodology in tourism research that its justification is no longer necessary, especially when conducting exploratory research (Ritchie et al., 2005). This dissertation is very much exploratory in nature given that self-organized governance models have not been studied in surf tourism and because Peru has never been the focus of a dedicated DWST study. The purpose of a case study is to explore, describe, or explicate a particular situation or phenomenon (Aita and McLlavian, 1999) and McBeath (2002) suggests that the case study is the preferred method for researchers working within interpretative or key theoretical frameworks. This study will be situated within the theoretical framework developed herein. This is done to gain a better understanding of how DWST operates in a remote isolated coastal community with the presence of an organization committed to reducing or eliminating the negative impacts historically associated with DWST. This study is exploratory because it is meant to begin a discussion about self-organized governance in DWST based on the conceptual framework already outlined.

Ritchie et al (2005:37) also say that “for a broad-ranging, psychologically complex field such as tourism, there is no singular pertinent research modality….alternative methods must be considered and used conjointly, from experiments and surveys through to participant observation, histories and ethnographies as well as case study.” This dissertation employs a blended methodology where
theoretical concepts are tested against local experiences using a case study (Yin, 1994). This blended or triangulated/multi-method approach is to help correct for research biases and also acknowledges the need to provide richness of detail and explanatory power in tourism research that is not possible with singular methods (Jenning, 2001; Ritchie et al., 2005).

In this study, a case study will be used to reveal the general nature of surf tourism development in Lobitos, uncover the processes that led to the creation of WAVES and highlight how the organization operates, and to assess the sustainability of the VST approach to self-organized governance implemented by WAVES using the FASST theoretical framework. The FASST framework was chosen because it has already been used to assess free-market approaches (Ponting et al. 2005; Ponting & O’Brien, 2013) and privatization schemes (O’Brien & Ponting, 2013) in DWST. Using this framework will therefore allow for VST to be compared to these other approaches. The FASST framework is used to organize the discussion of how WAVES contributes to facilitating a sustainable institutional framework in Lobitos, using the five established criteria. This means the ethnographic participant observation and informal interview approaches (Bernard, 2002) employed to collect data on VST in Lobitos will be analyzed utilizing a uniform hypothetic-deductive approach (Anderson & Kanuka, 2003; Jennings, 2001), meaning all data collected (whether through participant observation, informal interviews, or relevant literature) will be coded and filed under the five FASST criteria that come from an already existing theoretical construct. This is different from grounded theory (often used in explanatory case studies) which is employed to extract categories
inductively as they emerge from the collected data. By choosing this approach, the FASST categories are argued to represent a reasonable normative approach to assessing the sustainability of surf tourism in the developing world and I am therefore using this theoretical framework to guide the data analysis.

4.5.2 Data Collection

As noted, this is the first case study of surf tourism in Peru, a country with many high profile surf-breaks; a strong and growing local surf population; and a long surf history. Because preliminary data on Lobitos, especially in terms of surf tourism impacts is extremely limited, multiple methods were employed to collect data. This involved reviewing publications on the historic oil and military significance in the area; reviewing all websites and films describing surf tourism in Lobitos; and examining WAVES’s website, internal reports, press coverage, volunteer fundraising pages, and volunteer testimonials. This was important to help put DWST in Lobitos in a deep historical context to begin to understand the impacts of surf tourism in the area over time.

Unstructured interviews and participant observation methodologies were used during a three month time period beginning in June 2010, while I was a volunteer surf tourist in Lobitos. The rationale for this methodology was to embed myself within the organization that was the focus of this study in order to gain an experiential understanding of how WAVES operates and the impacts associated with the programs it facilitates. During the field study, an auto-ethnographic methodological approach was
used (Barbieri et al, 2012; Bochner & Ellis, 2006; Palacios, 2010). While participating as a volunteer tourist detailed notes from both participant observation and unstructured interviews were kept. Unstructured interviews are what goes on all the time and anywhere during a fieldwork (Bernard, 2002). While interacting with employees with WAVES, WAVES’ students, locals, and fellow voluntourists, I would ask many questions related to the current impacts of change brought on by surf tourism and I would also make an effort to ask what people hoped the future would look like in Lobitos. These interviews were opportunistic and occurred while waiting for the bus, surfing, building a surf shop, walking around town, sitting on porches, and over lunch (See Appendix B for a detailed list of informants). I did not always have objectives with these interviews and they did not follow structures or themes. They can be best described as emerging from the flow of experience. Whenever I would declare my role as a researcher for an informal interview, informant anonymity was promised to encourage participants to speak openly and honestly about their experiences and observations on politically contentious local issues. When data from these interviews are presented, aliases are always given throughout this work.24 Since my time in Lobitos was very limited, this approach was crucial to the data presented in the remainder of this case study.

Participant observation was what was gathered from observing things that existed outside of the informal interviewing. The data collected by participant observers are qualitative and take the form of “field notes taken about things you see and hear in

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24 Appendix B presents a table of informants with their aliases, time of interview, and role in the community for further review.
natural settings; photographs of the content of people’s houses; audiotapes of people telling folk tales; video tapes of people making canoes, getting married, having an argument; transcriptions of taped open ended interviews” (Bernard, 2002: 234). A detailed daily journal was kept of things that I saw and gathered through observing. Notes were taken in Lobitos after observing a community parade, witnessing fights in the surf, building structures with locals, cleaning up the beach, and having drinks around a bonfire, just to name a few instances. Participant observation required keeping a journal of how it felt for me personally to be a volunteer tourist, and not just descriptions of what was witnessed. In short, participant observation and informal interviews were used to document what I saw, felt, heard, and experienced while participating as a volunteer tourists.

Participating as a volunteer tourist also helped me to get a candid sense of how other volunteer tourists felt during the process through chatting, reflecting, surfing, and working together. This approach allowed me to make explicit use of my own positionality, involvements, and experiences as a volunteer tourist an integral part of exploratory ethnographic research (Cloke, et al., 1999). In this capacity, I was able to just be myself, another surfer hoping to make a difference in a community I was traveling to, which allowed me to learn much more than had I positioned myself as a university researcher approaching people with a formal questionnaire or tape recorder. I think the latter approach would have made me seem like an outsider to both the visiting surfers and the local community – rather than be perceived as an insider and concerned tourist.
respectively. In the end, I felt accepted in the community as someone who was there to learn and help, and as a fellow socially conscious surfer.

I also returned to Lobitos for two weeks beginning January 23, 2014 to observe the change that occurred since my initial field visit through a second round of participant observation and informal interviews with key stakeholders. The director of WAVES; a former field director; the current field director; the current entrepreneurial program coordinator; three local WAVES employees; two current volunteers; three foreign hotel owners (one from the U.S, one from Brazil, and another from Lima); two locals still affiliated with WAVES; one local who was with the organization in 2010, but is no longer involved with the organization; and two members of the local fishing community were all interviewed (See Appendix B). Names are changed to protect anonymity or they will be referred to by their roles in the community mentioned here. This re-visit to Lobitos to collect more data was crucial to the findings in this paper and helped to bring candid reflection on WAVES’ role in DWST inspired change, as well as, the realities of NGO operations in developing countries. Without this experience, I am not sure I could have constructed a case study as thorough as what appears here and this second round of participant observation and informal interviews help to build an appreciation for surf tourism development overtime as well as the effectiveness of the VST model implemented by WAVES in Lobitos.
4.5.3 Data Analysis

All field notes from informal interviews and participant observation, and secondary material were transcribed and coded according to the five FASST criteria that was outlined in Chapter 1. Every field note was typed out into print form and five highlighters were used to color code the information based on the five categories of analysis. This process was used to unfold, unravel, break up, separate, disassemble or fragment, and finally to reassemble the edited data (Boeiji, 2010) based on the criteria that will be outlined in the FASST framework. Filing the data in these five categories was intended to expose critical contradictions and consistencies, as well as, to organize the discussion of this approach to user self-organization in Lobitos, Peru. This was done in order to assess the potential of the governance approach initiated by WAVES to addresses these tenets of sustainable surf tourism. This study can be said to employ a hypothetic-deductive approach (Anderson & Kanuka, 2003) to analyzing the data collected because the content was coded and filed under categories of an existing theoretical framework (FASST), rather than using the content gathered to discover new latent variables or establish a new theoretical framework for future studies as is the product of grounded theory approaches. In this sense, this particular portion of the study was constrained to fit within the current FASST framework. This framework was chosen because it was built and evolved from decades of research on surf tourism, but had not yet been utilized by an independent researcher. This framework also allowed for a discussion of sustainable DWST as a theoretical guiding principal, rather than the sum total of a complex matrix of indicators. The discussion that results from this method of
qualitative analysis is meant to build an appreciation for the nuance involved when considering sustainability as a philosophical guiding principle in DWST and also allow for comparisons with other approaches to DWST in other localities.

The next chapter is dedicated to situating the Lobitos case study within the combined TES/SES framework offered in this study. This will involve a brief discussion of surf tourism in Peru and the processes which led to surf tourism growth in Lobitos. It will ultimately conclude with a description of the organizational structure of WAVES and the specific programs it implements on the ground in Lobitos. The following chapter presents the analysis and reflection of the data collected in Lobitos in relation to the five FASST criteria.
5.1 Overview of the Study Area and Context

5.1.1 Peru and Tourism: Branching out from the Inca Trail

Peru has two histories – one before the arrival of Francisco Pissarro and the Spanish in the middle of the 16th century, and one after. Before the Spanish came to Peru to expropriate resources for their mercantilist agenda, there were many pre-Columbian cultures and traditions from many different time periods. The Inca Empire, however is often given the most attention, mostly because of its size and simply because it was present when the colonizers arrived. The Inca regime had united many tribes throughout South America under a single and somewhat stable ruling authority at around the turn of the 15th century (there was of course some civil strife and problems over succession as with any empire). When the Spaniards arrived with their European bacteria, viruses, and weaponry in the 1500s it was not long after that the vast Inca Empire was decimated by disease and war (Mann, 2005). This paved the way for a period of Spanish rule followed by Peruvian independence in the mid-1800s. The goal is to mention, but not to oversimplify such a rich history, many of the same TES dynamics described in chapter 2 played in to the rise of the Inca from consolidating other Peruvian cultures, the fall of the
Inca, the rise of colonial rule, and Peruvian independence. The reason for recounting this brief history is to set the context for describing tourism as a major economic sector that brings together modern and ancient Peru.

Since international tourism became a major economic force in the 1960s in Peru, industry ownership has oscillated with governing administrations between the public and private sector (Desforges, 2000; Smith & Hurt, 2011). Despite a few drastic regime changes and times of economic turmoil, which caused dips in international visitation, tourist arrivals have been on a general growth trend for the last half-century (O'Hare & Barrett, 1997). From 1995 to 2013 specifically, international tourist visitation has grown from 485,000 people (O'Hare & Barrett, 1997) to 2.8 Million (UNWTO, 2013). While a growing tourism industry is generally thought of as a good thing in a country with nearly 30 percent of its population below the poverty line (CIA, 2013), many suggest that the problem with international tourism in Peru is that it is largely concentrated in the same basic area (Smith & Hurt, 2011; O'Hare & Barrett, 1997; UNWTO, 2013). Tourism bridges the ancient and modern Peru because the vast majority of tourists visit Peru to view cultural/archeological sites, specifically the Inca capital of Cuzco (The ‘naval of the world’) and the picturesque Inca city at Machu Picchu, which has been declared a UNESCO World Heritage Site.
Tourism to Peru has come to follow a somewhat predictable circuit, which locals call the “Ruta-Gringa,” with very limited variation as is shown in Figure 5.1 (Zoomer, 2008). However, direct visitation to ancient archeological sites such as Machu Picchu threaten the structural integrity of the sites (Smith & Hurt, 2011). Unlike when considering surfing waves as a tourism commons resource, if visitation to Machu Picchu is left unmanaged, the site would become over-run by tourists and literally collapse, sending the ancient architecture sliding from its mountain perch. This has led UNESCO to recommend limiting visitation to Machu Picchu, which is currently visited by nearly 68,000 tourists per month (Economist, 2010). This highlights how dependence on one region leaves the tourism industry susceptible to issues associated with over-use and saturation (Smith & Hurt, 2011; O'Hare & Barrett, 1997) and also over-reliance, which
can lead to huge economic losses when extreme weather events or other possible issues restrict access to sites like Machu Picchu. The Economist (2010) estimated that flooding, which interrupted rail access to Machu Picchu in 2010 for example, cost the international tourism industry $1 million USD per day and roughly 15,000 jobs for the few months during rail reconstruction.

While the circuit shown in figure 5.1 may be at the point of tourist arrival saturation and there are dangers associated with economic over-reliance, the Peruvian government is none-the-less committed to maintaining an annual double digit international tourism growth rate as an export earning strategy. The path forward seems to be through expanding into other areas and sectors (Smith & Hurt, 2011). Ecotourism to protected areas in the Amazon has experienced the most significant growth in the last decade and this is also starting to lead to many conservation and development challenges in small communities receiving growing tourism interest (Doan, 2013). Even though cultural tourism, and most recently, ecotourism have received the vast majority of research attention in Peru, tourists do not only go to Peru to look at ancient Inca and Spanish colonial architecture and search for wild bird and animal species in the Amazon’s protected areas. There is also tourism geared towards experiences as diverse as being led through the use of the hallucinogenic drug ayahuasca in a ceremony led by shaman in the Amazon (Holman, 2011) and having sexual encounters with Peruvians (Bauer, 2008). There has yet to be research conducted, however, on the growing role of adventure tourism in Peru and specifically surf tourism, which can be argued to be the largest adventure tourism sector in the country with the most potential for growth.
5.1.2 Surf Tourism in Peru

Peru has the four S’s covered in abundance: Swell, Surf spots, Solitude and Seafood.

Peru: It’s there, it’s happening, and the whole world is going somewhere else. You should go down and see for yourself. (Waterways Travel, 2013)

If Hawaii and California were the original two suns that the surf world revolved around in the early 20th century (Calish, 1985), then Peru was one of the incipient planets in their orbit. Peru has high quality surf resources and a deep surf history. The country has more than 2,400 km of coastline exposed to north and south pacific swell activity, winds that predominantly blow offshore from the Andes, and many points of land jutting out in to the sea – all of which combine to bestow the country with hundreds of high quality surf breaks. The importance of surfing in Peru spreads well beyond geography, there are very important historical and cultural elements to consider as well. There has been an effort recently to even credit the birth of surfing to the pre-Hispanic Moche/Chimu civilization in Peru’s north-central coast (Ponting, 2009; Warshaw, 2004; Wood, 2009).

Archaeological evidence from the Moche, dating back more than 2,000 years suggests that the peoples living in the Huanchaco area of Peru created interwoven reed boats that were used by fisherman to navigate out past the breakers to catch fish and also used to ride waves to shore after fishing. While it is not clear if surfing on these reed boats was ever undertaken as leisure activity for its own sake, many with cultural and economic interests in promoting Peru’s ancient cultures to Western tourists seem to cling
to this discourse and it is gaining traction in many travel books (Wood, 2009). Today surfers can even rent reed boats in Huanchaco and try surfing on these ancient crafts (Rachowiecki, 2009).

Regardless of whether the Moche used reed boats for pleasure or merely utilitarian purposes, modern surfing in Peru began in the early 1940s. This occurred when Carlos Dogny, who grew up between Biarritz, France (his father was a French military colonel) and Lima, Peru (his mother an heiress to wealthy sugar cane company) brought a Hawaiian surfboard back to Lima from a trip to Waikiki with the French water polo team (Encyclopedia of Surfing, 2011). While Dogny was in Waikiki, he was befriended by the legendary Hawaiian surf ambassador, Duke Kahanamoku, who taught him how to surf and ultimately gave him the board Dogny brought back to Peru. This board was passed around between Dogny’s wealthy friends in Lima and eventually they made replicas of this board and established a high class surf club called Club Waikiki in Lima Peru. The club still exists and the wealthy Peruvian elite surfers in the club still hire board boys to fetch their boards, carry them down to the ocean, and wax them up in preparation for going out in to the breakers (Chaplin, 2008). Due in part to the influence of Club Waikiki, surf spots in the vicinity of Lima were covered in the third issue of The Surfer (now Surfer Magazine) printed in 1961, and Lima then hosted the World Surfing Championships in 1965 (Calish, 1985). Waterways travel, an international surf tour operator with surf tours offered in Peru, also suggests that Chicama, arguably the
longest\textsuperscript{25} wave in the world, was discovered in 1966 when a Hawaiian surfer was flying over Peru’s pacific coast on his way to Lima. Surfing in Peru, therefore, has a longstanding historical tradition and has been covered in the surf media since the very beginning of modern surf travel which began in the early 1960s. Thus, Peru was never a secret waiting to be discovered by a First-World surf neo-colonialist. The first Hawaiian surfboard to enter the country sparked a small community of surfers, and surfing has since mushroomed into a major cultural force in Peru.

Club Waikiki symbolized the early ties between surfing and Peruvian elites, but also what will continue to be a cultural tension playing out in what is now one of the most popular sports in the country. Many of the club members (and surfers outside of the club) had and continue to have European ancestry and this demographic has until recently maintained supremacy on the coast as well as in the surf. This coastal hegemony, however, is being challenged as more and more of the Andean population migrates to coastal cities. In Peru in the 1950s, 72 percent of the total population was rural and in 1993 this was completely inverted, with 72 percent of the total population living in coastal urban centers (Wood, 2009). Now, 77 percent of Peruvians live in coastal urban centers (CIA, 2013) and the combination of this shift with higher incomes has facilitated growth in the Peruvian surf population (Wood, 2009).

Wood (2009) suggests that after a long history of surfing couched within elite circles in Peru, that for the last decade, surfing has been spreading to other socio-

\textsuperscript{25} The term “longest” in surf terminology is used to suggest the wave can be ridden for the longest distance and time.
economic groups and this has had dramatic cultural impacts in Peru. Borrowing from Ford and Brown (2006), Wood (2009) argues that surfing space (the area between the beach and ocean beyond the breakers) has become an important place for those with ties to the Spanish elite and the new indigenous migrants from the highlands to mesh, as well as, to establish new identities and meaning in their interactions. It is the merging of the old elite with the indigenous Andean population that defines modern Peru and surfing has become an activity that has come to forge meaning and understanding during this transition. Wood (2009) says:

Following a crisis of national identity in Peru, in which the emerging consensus has been of an increased tolerance of the country’s heterogeneous culture, the traditionally hegemonic culture of the coast is being redefined in the face of mass migration from the Andes and the rise of the hybrid cultura chicha, which fuses Andean traditions with elements of Western culture. In the midst of fiercely contested visions of cultural identity, surfing emerges again as a key means of negotiating binary oppositions and resolving, or at least redirecting, their inherent tensions (Wood, 2009: 235).

Wood (2009) argues that Peruvian literature has always presaged academic work on social phenomena in Peru. Because surfing has become such a common theme in Peruvian literature, Wood (2009) suggests its influence is growing and more scholarly efforts to understand its impact will soon follow. While a coastal elite class has been surfing in Peru for more than 70 years, surfing culture in Peru is beginning to change quite drastically as more Peruvians take up the sport and more tourists begin to choose Peru as a surf holiday location.

Though we do not have adequate data on the number of local Peruvian surfers, Wood (2009) says that surfing has become one of the most popular sports in the entire country, second only to soccer (fútbol). In the northwest coast, I witnessed that almost
every billboard has a picture of a surfer on it. Symbols of surfing’s growing importance also include its dedicated daily television show (Free Ride), local surf periodicals (Tablista and Extreme), and local forecasting websites (Forero, 2004). Also, the world’s best female surfer is a Croatian/Peruvian Surfer named Sofia Mulanovich, whose father and grandfather were members of Club Waikiki. She is known as “la Gringa” because of her light complexion and hair and her Croatian ancestry, but she was born in Peru and takes pride in her Peruvian heritage. She has become an icon in Peru to males and females of all ages for becoming the first Peruvian to win a world surfing title. Her popularity has helped to grow the sport throughout Peru and helped to empower female surfers throughout the country. But the importance of surfing to contemporary Peru is not restricted to one successful female athlete.

The International Surf Association (ISA), the world governing authority for surfing, was also founded in Peru. And, on December 8th, 2013 the President of Peru (Ollanta Humala) signed the “Law of the Breakers,” which sets a precedent for protecting wave resources from coastal development projects with potential to change the dynamics of wave resources or restrict the ability of surfers to enjoy these waves. This is the first national law in the world dedicated specifically to surfing resources. This signals the importance of wave riding resources in Peru because they are significant enough for the federal government to establish procedures and a processes for areas to file for surf reserve status, which would grant them legal conservation protections.

What is most interesting for the purposes of this work is how slow surf tourism has been to take-off in Peru, given the quality resources, long surf history, and the local
affinity for the sport. According to the Peruvian Ministry of Foreign Trade and Tourism, in 2010, more than 20,000 international surfers visited Peru (Surfer Today, 2010). While this statistic suggests a boom in surf tourism to Peru, when compared to Costa Rica, which has as many as 400,000 surf visitors annually (Blanco, 2013), Peru is still very much a nascent international surf destination. Especially when considering the relative sizes (geographical and population) of Costa Rica and Peru and in light of the fact that surf tourism really only began to take off in Costa Rica in the late 1990s (Krause, 2012). There have been many explanations for slow tourism growth in Peru in the surf media (desert without great coastal tourism infrastructure, perceived danger, cold water which requires a wetsuit most of the year, quicker and easier to go other places, etc.), and most of it has been used in marketing materials to try and get surfers to go there on their next surf trip (See the quotes used to open this section). Waterways Travel (2013) also asks: “so why isn’t all that coastline, surf and history more popular with traveling surfers?” Their answer: “We don’t know, Peru is the most disregarded secret in the surfing world. Most people know the place has incredibly consistent surf, but most people overlook Peru and go elsewhere.”

While surf tourism may have been slow to take off in Peru, it is beginning to boom and many areas have begun to reach their saturation points as development swells to accommodate growing volumes of surf tourism. Surf entrepreneurial ventures are springing up throughout the country’s coastline with hubs built around Lima (South), Trujillo (Central), and Mancora (North). Crowding in many developing world surf destinations is putting pressure on Peru to absorb surf tourists wanting to escape the busy
surf-breaks becoming notorious almost everywhere in the world with quality wave resources. Further evidence of DWST being connected at the macro scale as a global SES. Surfers have known of quality wave resources in Peru since the beginning of the surf media, but now with a surf friendly political culture; increasing willingness of surfers to sacrifice warm water for wave quality and uncrowded conditions; and growing interest in using surf tourism as an economic driver for coastal development and poverty alleviation; Peruvians are getting behind supplying the type of surf travel conditions that are now in such high demand. Surfers are becoming more and more willing to put on wetsuits and drive through some dust to get to Peru’s quality surfing resources spread throughout the coastline. Established surf cities, like Mancora, are bursting at the seams and new ones are growing in many places, including Lobitos, Peru.

5.1.3 Lobitos, Peru - Historical Context

There is very little information available about Lobitos, Peru prior to 1900. In 1900, a small British firm called Lobitos Oilfield Limited formed to prospect and eventually extract resources from this oil rich coastal region in northern Peru. Peru, has the oldest petroleum industry in Latin America, and Lobitos is an interesting area because it was one of the few areas where a small independent firm operated somewhat successfully for decades (Miller, 1982). Most of the oil history in Peru has been dominated by large companies such as the International Petroleum Company (IPC), a subsidiary of Standard Oil of New Jersey, contesting for leasing rights and buying up extracting and refining operations. What happened in Lobitos was slightly different
(though it was eventually bought out after three decades of independent operation), a group of British merchants decided to establish a settlement in Lobitos and operate the fields independent of large firms. They did not just commute to the fields to monitor the operations and go home elsewhere, they brought their families and established a small town after oil revenues began to follow the highly productive drilling operation. Between 1910 and 1920 Lobitos Oilfield Limited produced more than 20 percent of Peru’s oil, and following the purchase of this operation by the IPC in 1934, Lobitos produced 42 percent of Peru’s oil prior to the military coup in 1968 which led to the nationalization of Peru’s oil industry (Miller, 1982).

Before the coup, Lobitos was essentially a British/American colony, leased from the Peruvian government. This colony installed infrastructure that supported oil operations and comfortable human settlement including roads, a hospital, a school, a casino, a pier, a swimming pool, slaughter houses, dozens of large colonial homes and cottages, and what many say was the first cinema in South America (Jansana, 2009). After the Lobitos Oilfield limited was bought out by the IPC, many from the U.S. came in and occupied the dwellings constructed by the British firm. Both firms employed many people from the fishing communities living a few miles north of the oil operations and this led to some of the first fishermen moving south to establish a settlement closer to the lucrative service jobs for the foreign oil companies. A former field director for WAVES, said that this began the creation of Barrio Primavera and also establish a sentiment of appreciation within the local community for foreign occupiers that brought jobs.
After a period of colonial prosperity, the military came in and expelled all foreigners from this area in the late 1960s. The Peruvian military oscillated its presence in Lobitos many times during the country’s centuries long boarder conflict with Ecuador, and established quite a large presence in Lobitos following the military takeover of the government in the late 1960s. Military personnel in Lobitos, however, consistently scaled down from the time of the coup until the last few years of the twentieth century. In the early 2000s the military presence had dropped from thousands to around a dozen, and the commanders of this small battalion oversaw the looting of the infrastructure erected in the colonial period. In 2008, the grand casino, the pier, the school and many other structures were taken down and sold for parts (Jansana, 2009). Figures 5.2 and 5.3 show images of looted houses, as well as, the old fishing pier that was scrapped and sold off. The local fisherman’s union along with a group of surfers petitioned the government to stop the looting of structures in Lobitos and in 2008, Peru’s National Institute of Culture (INC) declared all wooden structure in Lobitos as “historic structures,” a title that came along with legal protections and incentives for restoration and maintenance (Jansana, 2009).
Figure 5.2  Looted Barracks and School Houses (Personal photograph 2014)

Figure 5.3  Scrapped Pier (Personal photograph 2014)
This led many Peruvians from neighboring areas to flock to abandoned military housing and colonial cottages and were told that if they leased them from the military and improved/maintained them (Figure 5.4) they would be granted the possibility of owning these properties in the future (Jansana, 2009). Many dirt floor and tin roof structures were also built by fisherman who began moving to the area as well, as land in this area of Peru is granted to anyone who builds a structure and remains on a piece of property for more than five years. This has also led to many entrepreneurs from Lima and other countries coming in to Lobitos and fencing off and guarding pieces of land for future development. Many locals also build fences around prime real estate and sell the land to outside entrepreneurs. It is to the point now that the biggest physical changes in Lobitos between my two field visits in 2010 and 2014 is the volume of fenced off land, half built structures and new hotels. It is now hard to find a piece of land that has not been claimed.
What we know for sure is that since the establishment of Lobitos Oil Field Limited there has been a steady influx of migrants from near and far to Lobitos. Due to this steady migration, Lobitos was granted status as one of six districts in the Talara province in the region of Piura, Peru. Lobitos is run by a small municipality with a Mayor as the lead official. The 2007 Peruvian census, reported that Lobitos has a population of 1,506 (920 males and 586 females) with artisanal fishing as the dominant profession (INEI 2007). Other main waged activities include property sales/rentals/leases, municipality workers, military work, construction and work in hotels and restaurants. Godden (2013) suggests, after conducting more than 50 household visits in Lobitos that the census information does not reflect impacts of reported declines in fishing yields; the temporality of most work in Lobitos (including short term casual roles in construction and local government); the estimated 40 people who provided casual
transport services with their moto-taxis; or the 30 to 50 homes with small shops or businesses for additional income. Therefore when the census suggests that twenty-three percent of the able body working population above the age of six has difficulties generating income (INEI, 2007) this may not be an accurate figure considering the issues Godden (2013) argues are missed in the census figures. Furthermore, the population and percentage of people working in surf tourism has certainly grown since the 2007 census and 2011 (time of Godden’s study) as more surf related businesses have entered Lobitos following each study.

5.1.4 Surfing in Lobitos

Mancora, Peru has been likened to the North Shore of Hawaii, where Peruvian elites from Lima have been traveling to surf for decades and where many now own vacation properties (Barrack & Brown, 2006). Mancora has been a get-a-way for Peruvian surfers from the south coast of the country for almost as long as people have been surfing in Peru. It is a place where people can get out of the gloomy city and travel closer to the equator, where the weather and water are warmer and the sky is clearer than in Lima, not to mention the winds also more favorable to surfing. In Peruvian summer and winter, Mancora has been described as a place where all the best surfers in Peru and traveling surfers from abroad congregate (Barrack & Brown, 2006). Surfers on holiday from Lima and other large cities in Peru typically base themselves in Mancora, but also travel to other waves in the area to surf less crowded surf-breaks. Lobitos lies sixty kilometers south of Mancora and really began to receive attention from surfers visiting
the north following the 1998 mudslides that improved the geology for surfing in Lobitos. Environmental changes, in this sense, created the conditions for the introduction of surf tourism to Lobitos.

Jansana (2009) and Godden (2013) suggest that surfing in Lobitos took off following a series of El Nino events in 1983 and 1998 which caused a great deal of damage in northwest Peru. Bazo et al. (2013) find that the El Nino phenomenon in northwest Peru can cause rainfall to exceed 500 percent of its typical average. In this extremely dry area in the Sechura Desert, the rain storms that accompanied the 1998 El Nino caused mudslides, damaging many structures in Lobitos and also making access to the coast very difficult. During interviews with community members, many suggested at this time the nearest city, Talara, was only accessible by boat because all the roads were washed out and impassable.

The intense rains, however, also caused mudslides which pushed sand from inland hills onto the beach, first forming the waves in Lobitos and subsequently improving their quality. So while these mudslides caused a lot of damage, they also formed the wide sand beaches in Lobitos and sandbars conducive to providing the long clean breaking point-breaks that now draw surfers to Lobitos (the four main surf-breaks are listed in black on Figure 5.5). Situating this case study in the TES framework, environmental changes in the form of El Niño weather events created quality surfing conditions in Lobitos. These environmental changes facilitated further social and environmental evolution in Lobitos as surf tourism began to occur in the area. Prior to these storms, there was no one surfing in Lobitos, after these events, word got out about the surfing
wave quality through technological channels and entrepreneurs and surfers began to flock to Lobitos.

![Lobitos Map (Surf-breaks in Black)](image)

Figure 5.5 Lobitos Map (Surf-breaks in Black)

Jose Antonio Sangüesa was one of the first people known to have moved to Lobitos in 2001 to begin a surf tourism enterprise (Jansana, 2009). He began living Nuevo Lobitos, (which translates to New Lobitos shown in Figure 5.5) an area on top of a bluff overlooking the main point-break in Lobitos, typically called La Punta or La Maquina (Labeled Punta Lobitos in Figure 5.5). Most of the fisherman that flocked to Lobitos to work for the oil companies and following the 1968 expulsion of foreign oil industry workers, built houses in what is now called Barrio Primavera and also squatted in dwellings located in the Colonial Section of town. Foreigners and surfers from Lima
and Mancora, however, first began to build houses in Nuevo Lobitos. The physical development of Lobitos, in this sense, began to embody socio-economic disparities as the wave of surf tourism development was initially located on the other side of town from the fishing community. Surf tourism has, however, become more dispersed in recent years. Jose Antonio may have begun this trend when he leased a colonial dwelling from the government in the old section of town (labeled colonial town above) and restored the structure to run a guest house for surf tourists (Jansana, 2009). He began restorations in 2003 and now there are about 40 other lodging options spread throughout Lobitos, which include local homestays, restored colonial dwellings, and surf camps, as well as newly constructed bungalows and large hotel complexes in Nuevo Lobitos (this up from roughly 20 documented in 2010). Godden (2013: 255-256) corroborates these findings and adds that:

According to local narratives, between 2000 and 2010, surf tourism in Lobitos grew from a single hostel to more than 20 accommodation providers and 10 restaurants, with 50–100 Peruvian and foreign tourists visiting at any given time. Nearly all tourism services were owned and managed by approximately 50 turist locales [tourist locals] – middle-class people who moved from Peruvian cities or overseas. Surf tourists spent up to $50 US per day for food and accommodation, 3–20 times the daily fishing wage. However, very few local people were employed or financially benefitted from tourism.

Jansana (2009) claims that in 2008, 2,500 surfers visited Lobitos on holiday and stayed at least one night. This number fails, however, to reflect the hundreds of surfers who typically visit Lobitos on day trips from Mancora each year, but that return to sleep in Mancora or Los Organos. Even if day trippers are not considered, in a small town with only around 1,500 inhabitants, 2,500 visitors a year has a significant impact.
Surf tourism has been steadily growing in Lobitos since 2001, but spiked after the film called, *Peel: the Peru Project*, opened with professional surfers Mark Healy and Jamie Sterling surfing alone in head high surf at Punta Lobitos in 2006. In the video, one wave rolled in after another and the pros surfed the long point-break playfully in board-shorts, which hinted of warm water. They, like many others, traveled down from the already established tourism hub in Mancora. They described the waves as amazing and uncrowded, but the town of Lobitos in general as desolate and said that they stayed in an abandoned colonial structure because there was very little tourism infrastructure. The two pros also joked about how there was nowhere to eat besides one local kitchen only serving local fish of questionable quality, which further added to the allure that Lobitos was virgin surf tourism territory. This film really exposed Lobitos to a wide audience of surfers and the allure of surfing long, clean breaking, point-breaks in board shorts in the middle of the desert with no one else around surely contributed to an influx of international tourism to the area already well-known by day trippers from Mancora. This film also inspired future surf films like *Castles in the Sky* (2010) which showed professional surfers like Rob Machado surfing in Peru and sparked even further interest in tourist visitation.

Lobitos is a special place in the surf world because it is known for having high quality left-hand point-breaks all year round. Many of the world’s best waves are seasonal phenomena. Everyone has heard of the North Shore in Hawaii for example, but go there in August and expect to surf the waves you saw in the *Blue Crush* film, or any waves for that matter, and you will be very disappointed. In Lobitos, however, on any
given day, at least one (and typically more) of the four most well-known waves will be breaking (there are also other seasonal waves such as Punta Panama and Generales, which break in the Peruvian summer). In an interview conducted with a hotel owner from Lima who opened the El Hueco luxury surf villas in 2013, he said, “I decided to open my hotel in Lobitos because I know surfers who come to stay here can find a quality wave to surf every single day of the year, I am not sure of anywhere else in the world where this is true.” Other than being consistent, it is also known for being a rugged place that is hard to get to. Lobitos is roughly equidistant from Guayaquil airport in Ecuador and Lima. To get to Lobitos, one must fly into one of these airports and travel an entire day by bus (typically overnight) to get to Talara and then take a thirty minute shuttle from Talara to Lobitos. This requires traversing some pretty rugged and bumpy terrain. This contributes to why many say that only dedicated surfers have an interest in Lobitos, which is an old desert industrial town without many restaurants, bars, or other things to do besides surf. This gives Lobitos somewhat of a cult following, or a place people go to show they are serious about surfing.

Regardless of how development progresses in Lobitos, the waves will most likely continue to be plentiful, consistent, and of high quality. There is a danger, however, of losing Lobitos’ rugged die-hard appeal as more lodging and restaurant options begin to spring up and the promise of uncrowded waves becomes increasingly threatened. Field observations in 2014 revealed that at peak surfing times (early morning and late afternoon) between 40 and 70 surfers could be counted in the water at the main point break on any given day – this on a wave with a recreation carrying capacity I would
estimate to be between 15 to 25 surfers. The theme that Lobitos is becoming overcrowded occurred many times during interviews in 2014, which will be subsequently discussed in more detail. I mention the crowding issue here because it is related to the mission and vision of WAVES for development (WAVES). WAVES was created in 2007 to try to help organize the local fishing community to have a stake in the development boom occurring and also use the influx of tourists to diversify income generating opportunities in this economically depressed coastal town. The next section will offer a brief overview of WAVES.

5.2 WAVES for Development

5.2.1 Situating the WAVES Context in the New Theoretical Framework

Environmental changes (severe El Niño events) created the conditions for quality surf in Lobitos. The surf media and social media exposed the quality surfing conditions and created interests for surfers to visit Lobitos. Now it is critical to understand the factors that led to the creation of an international NGO dedicated to intervening in a historically destructive process to attempt to facilitate an alternative development course in Lobitos. In Table 1.1 the variables that Ostrom (2009) suggests correlates with user self-organization to prevent resource exploitation and collapse are listed. Blanco (2011), in studying nature based tourism as a SES, argues that the user variables offered in Ostrom’s work are most significant to understanding the presence and success of voluntary private sector initiatives to foster sustainable tourism. As noted, those user
variables are the number of users, leadership/entrepreneurship, norms/social capital, knowledge of SES/mental models, and the importance of the resource. The framework developed in this work was created to begin a discussion of the origins of three of these significant user variable (leadership/entrepreneurship, norms/social capital, knowledge of SES/mental models). I suggested that a growing online surrounding gaze as a global governance mechanism coupled with locally experienced nearby degraded surf-resources can be seen as driving knowledge of the surf resource problem, building shared norms, and inspiring leadership aimed at reducing or eliminating the negative impacts historically attributed to surf tourism development in remote coastal communities. The presence of WAVES in Lobitos supports these claims.

When I asked Aabo what the central problem he is trying to address with WAVES was, he said it is local exclusion from surfing and the surf tourism industry. He said to me and in other interviews for online publications that locals are typically left out of surf tourism development, development which is inevitable in places with quality waves. In order for development to occur with the local community in Lobitos rather than around it, Aabo has said, the community needs financial, educational, and technical support to be able to participate in the surf tourism industry:

Foreigners come in and develop one facet of the community, like surfing....[t]hen they exploit the resources. Then they start grabbing up the land and the poor people get pushed out of town because it’s too expensive, and in the end, the locals completely miss out on the development (Surfer Magazine, 2012)

He also said, “It was evident from the beginning that the surf industry was coming… So we said: ‘why not give the locals the ability to tap into what’s going to happen” (Surfer Magazine, 2012)? This indicates that there is a growing recognition in surf culture that
surf tourism inspires rapid development that has not historically been kind to local communities and a growing desire to react to this realization in ways that alter what has become perceived as commonplace in DWST. Aabo’s comments and those noted earlier by WOO’s founder are illustrative of what all VST NGO founders said about wanting to facilitate local community inclusion in the industry, which is evidence of mutual impact from a growing surrounding gaze. Aabo’s responses to interviews and the programs WAVES offers indicate an understanding of the issues associated with the way in which the global neoliberal structure of surf tourism development described in Chapter 3 operates and this knowledge was formative to the creation of WAVES.

WAVES was also established in a site where areas nearby had already experienced rapid surf tourism inspired growth (specifically Mancora, but also increasingly in Los Organos). In Lobitos, the majority of the community relies on artisanal fisheries as the primary source of income and there is a report that suggests yields have been steadily declining in the area for decades (Godden, 2013). While surf tourism is not meant to supersede the dominant industry in Lobitos, WAVES was founded on the belief that getting locals involved in the surf tourism industry can provide supplemental income to fishing families, diversify economic opportunities, and prevent foreign interests from dominating the development path, as has happened in areas neighboring Lobitos. In this sense, WAVES seeks to help the community in Lobitos avoid the development path that has occurred farther north in Mancora. In a survey of 50 households in the area, 49 percent of the people interviewed said they valued the tranquility in Lobitos and many mentioned not wanting drugs, prostitution, and large
scale development witnessed in nearby Mancora to infiltrate Lobitos (Gooden & Periche, 2011). In informal interviews with locals, volunteer surf tourists, area entrepreneurs, WAVES’ staff, and other surf tourists most said that they did not want to see Lobitos turn into another Mancora. In short, local experiences in Mancora significantly drive an ethos and willingness to try to prevent replication. Combining this with evidence that Aabo was influenced by a growing surrounding gaze, it can be argued that these variables were important in fostering the entrepreneurial leadership to establish VST as an autonomous governance mechanism in Lobitos.

VST in Lobitos is a governance model driven by entrepreneurial leadership to broker interactions between surfers, local communities, and resources units (waves) in a way that fosters sustainable outcomes. WAVES is, in part, a reaction to an online surrounding gaze enveloping DWST and is a model that was put in place to prevent the perceived unplanned overdevelopment, local exclusion, and the wave resource exploitation experienced in areas in close proximity. Online communication channels have facilitated the rapid and far reaching spread of information related to new surf-breaks in the developing world, which has undoubtedly contributed to increased visitation to Lobitos, but has also created the conditions for inspiring leaders to create and implement governance models such as VST. VST is itself heavily reliant on the internet to spread word about their operations, enroll new volunteer tourists, coordinate efforts between international offices and the field staff, and raise funds for projects. In an informal interview with Aabo, he said that the majority of their volunteers heard about their programs online from either WAVES’ online marketing platform, from friends
posting things on Facebook, or by searching for surfing/volunteer travel opportunities online. Every volunteer I spoke with found out about WAVES online and this is critical to understanding change in DWST. To summarize, there are interconnected global and local scalar considerations which explain how surf tourism materializes in any context and also the way in which autonomous governance strategies are instituted. To gain a better understanding of these scalar relationships and autonomous governance, this work will now discuss the mission and history of WAVES, as well as, its organizational structure and projects.

5.2.2 Mission and History

![WAVES Acronym](wavesfordevelopment.org)

Figure 5.6 WAVES Acronym (Copied from wavesfordevelopment.org)
While WAVES currently operates on-the-ground activities to improve the living conditions of locals in Lobitos only, WAVES represents a model of self-organization that is going on at the global level. WAVES is a multi-national non-governmental organization (NGO). It is a 401(c)3 based out of Oregon (where Aabo currently resides) and is also an officially registered non-profit organization in both Switzerland and Peru. Aabo essentially utilized international connections to solicit support for WAVES and the organization has board members from the US, Brazil, Switzerland, Peru, Australia and the UK, all with equal input on the programs and operations WAVES conducts in Lobitos.

Even though WAVES is very much a global organization, their efforts also represent a model of self-organization locally in Lobitos for the purpose of sustainably utilizing its world-class, and increasingly world renowned, wave resources. This keeping with Ostrom’s (2009) definition of self-organization, which states that it occurs when users of the resource come together to prevent over-use and its associated consequences. For Ostrom (2007; 2009), self-organization is not about government imposed rules, laws or private property regimes, but a broader institutional framework created by users to guide individual action in a way that preserves a resource’s integrity. This process could result in some rules or laws becoming a part of this broader institutional framework, but these would only be seen as part of the larger institutional framework, which would be considered the sum total of many behavior conditioning mechanisms. While foreigners

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26 Sylvain Gaeng is a co-founder of WAVES. He and Aabo met on early surf trip to Lobitos and shared a mutual desire for helping begin WAVES. He established an office in Switzerland (his country of origin) to help solicit volunteers and donations from Europeans.
may have initiated WAVES’ efforts to organize the community in Lobitos to participate actively in the surf tourism development process, this still represents self-organization because it represents users engaging other users in a process of creating a framework for sustainable surf resource use. The measures WAVES has put in place are a part of a larger process of organizing many different stakeholders in Lobitos in an attempt to ensure surf tourism impacts are not environmentally hazardous and that tourism benefits help the local community, rather than be siphoned out of Lobitos as surf tourism development has done in other places mentioned throughout this work.

Dave Aabo (who is now WAVES’ Executive Director), first visited Lobitos in 2004 while working as a Peace Corps volunteer in the Peruvian highlands. As an avid surfer, Aabo traveled to many surf-breaks in Peru during his time off from development work, but in Lobitos he found some of the best quality, un-crowded, and most consistent waves he had ever surfed. He proceeded to visit many times and grew an affinity for the town and the local youth that he found were eager to try their hands at surfing as well. He decided in 2007 to start a non-profit to help get equipment and teach local kids how to surf so they could enjoy the waves that he and other traveling surfers were riding. The first two obstacles Aabo encountered was that the most of the locals did not know how to swim and the second was that they could not afford surfboards. Even though the majority of the community went out in to the Pacific Ocean every day in small wooden boats to catch fish for a living, hardly any of them could swim. He, therefore, had to first offer swimming lessons and also began to see interest in surfing as an avenue for teaching people how to swim as a public safety initiative in Lobitos. Preventing drowning,
however, was a tangential benefit to his wanting to share the enjoyment of riding waves with people who would otherwise be economically sidelined. Surfboards are a very expensive investment, even used boards cost between 150 and 450 dollars. In a subsistence fishing community where most families earn between 2 and 15 dollars per day depending on fishing yields (Godden, 2013), this would be a huge financial outlay and would not be justified in most families. After beginning with swimming lessons, in 2007, WAVES solicited the donation of a crate of surfboards from Global Surf Industries and with these boards ran a two week pilot course teaching local kids in Lobitos how to surf. Aabo and others quickly realized that the community was thrilled at the opportunity to learn how to surf. They also quickly learned that the community would not only be safer (prevent drowning) and kids would have a new outlet to have fun together, but conveying surfing knowledge and access to surfing equipment to the locals was the necessary bridge to help grant the local youth a stake in the growing surf tourism industry in Lobitos.

Volunteer tourism was the model he saw as the best way for WAVES to get unpaid surf and language instructors to Lobitos, while at the same time provide an economically valuable tourism service to mid/high income young adults from industrialized countries. The official WAVES VST operation then began in 2008. The initial goals for WAVES was to have volunteers financially support WAVES’s mission to teach surfing, surfboard repair, English, environmental awareness, and entrepreneurship, which were programs thought to help give locals the capacity to enjoy surfing and diversify their families income by working in the growing industry. The hope was also
that through these projects, both volunteers and locals would benefit from cross-cultural interaction. Since 2008, WAVES has had more than 300 alumni providing financial support and staffing for the organization’s programs. Currently WAVES has community outreach, environmental health, entrepreneurial empowerment (along with microfinance), surfing, and English language programs (for youth and adults), which all try and help further the mission of helping surf travel benefit the people and the communities where it happens.

5.2.3 Organizational Structure and Activities

Information for this section is drawn from firsthand experience working as a Volunteer with WAVES in 2010, the ethnographic methods mentioned in the last chapter, and from a thorough review of the organization’s online material and publically available internal reports. Figure 5.7 shows a detailed organizational hierarchy, which can help readers to visualize the way the organization is currently operating. Dave Aabo is the main liaison between the international board of directors and the field staff in Peru. He operates WAVES’ USA office in Oregon (headquarters for reaching out to donors and marketing to potential voluntourists in the US) and also makes frequent visits to Lobitos to oversee the operations on the ground. Working directly under him are the Site Manager (Martha) and the Associate Administrative Director (Isabell). The three of them cooperate to staff the coordinator positions and must approve any projects undertaken by the coordinators. For each of the four general programs (volunteer, environment and health, entrepreneurial empowerment, and community outreach) there is one coordinator
working in the field. The coordinators oversee certain daily functions of WAVES’ operation in Peru. Each coordinator is in charge of the projects that fall within their respective program and the employees who work on the projects. The yellow colored boxes in figure 5.7 indicate the local jobs that WAVES was supporting during my field visit in 2014 and the blue boxes represent jobs held by international employees, most being from the United States.

Funding for WAVES comes predominantly from volunteer donations and participation fees. WAVES charges tourists a mandatory $595 USD program contribution\(^{27}\) to begin the program and $395 a week thereafter for a shared dorm room and food. With the average volunteer staying for two-weeks, this suggests WAVES has received roughly $420,000\(^{28}\) (or $70,000 annually) since beginning operations in 2008. In 2011, according to WAVES (2011), the organization received $87,000 in total revenues, up 24 percent from the previous year, with 62 percent coming from volunteer fees, 11 percent from NGO grants, and 19 percent from direct donations. WAVES is looking to grow volunteer participation and is working to encourage more group visits from universities to increase revenue and reduce dependence on grants and donor funds.

As for expenditures, twenty-one percent is earmarked for salaries (for local employees, foreign employees based in Lobitos, and international staff) and eight percent is allocated for travel expenditures, mostly for US based employees to travel to Lobitos

\(^{27}\) It must be again mentioned that the pre-departure program contribution can be paid for through individual fundraising campaigns before departure, which helps offset individual costs and helps to spread the word about WAVES’ efforts to help the community in Lobitos.

\(^{28}\) This is a rough calculation assuming each of WAVES’ 300 alumni paid the program fee and stayed for the two-week average.
(WAVES, 2011). The majority of the money coming in goes to financing important community projects in Lobitos (62 percent), which will now be discussed under each of the four main programs WAVES operates.

**Figure 5.7 WAVES Organizational Structure (yellow = local job)**

**Community Outreach Program**

WAVES began teaching locals how to surf in Lobitos in 2008, and this is still a major portion of the community outreach effort. WAVES has provided free swimming
and surf lessons, as well as, access to wetsuits and surfboards to more than 60 locals living in Lobitos. When I was volunteering in 2010, surf classes were held twice a week and attended equally by males and females between the ages of 10 and 20. Most groups were between 12 and 15 students. WAVES hires a local surf instructor to lead the program and volunteers typically help push the smaller children into waves and give pointers to the more advanced surfers. Surfing draws the younger people in the community towards WAVES and the program remained robust during my field visit in 2014.

The community outreach coordinator has also worked to bring female World Surfing Champion, Sofia Mulanovich (Croatian/Peruvian), to visit Lobitos on a few occasions to help deliver surf lessons and encourage surfers in Lobitos to follow their dreams. Mulanovich is arguably the most famous athlete in all of Peru and having her endorsement of WAVES’ programs entails a great deal of local capital. WAVES also helped to bring the 2009 Association of Surfing Professionals (ASP) women’s contest to Lobitos. A contest, which exposed young surfers in Lobitos to all of the best female surfers in the world. A competition, Mulanovich ultimately won. Bringing famous surfers to Lobitos, hosting surf contents, and giving surf lessons are all a part of WAVES’ community outreach through surfing. The surf program began WAVES’ community outreach program and will remain a centerpiece.

Out of a desire to do more than teach surfing and to reach more community members, WAVES has since set out to create a mechanism for informing the community about their programs and creating an infrastructure for the community to express their
desires from WAVES. Building on the surf lesson foundation, the site manager and the administrative director now work closely with the community outreach coordinator to conduct frequent community consultations to establish community desires and channel efforts to achieving community led goals (WAVES, 2011). In short, Aabo and WAVES’ site manager in 2010 both told me that they knew they wanted to do more than offer surf lessons in the community, but they wanted the community to decide what else they would undertake. Through community consultations and household visits (conducted in 50 households) in 2010, WAVES found that better education (52 percent), healthcare (25 percent), and employment opportunities (15 percent) were the primary community desires (WAVES, 2011). Godden (2013) found that 70 percent of her 50 study participants desired English language instruction and therefore, WAVES decided to add an English language component to their surf courses, which began growing in popularity since their inception in 2008. WAVES continues to finance a program to teach English classes (always has a full-time teacher on staff) to students in primary school, secondary school, and also to adults seeking support to become tourism entrepreneurs. In 2011, 180 people received regular English classes from WAVES sponsored programs (WAVES, 2011).

The community outreach coordinator also organizes public events sponsored by WAVES. Efforts in this category include holding social events for youth in Lobitos, ensuring WAVES has a banner and a presence at local parades and holiday celebrations, puts on local surfing competitions, and hosts public meetings for community members to voice concerns. All of these efforts are intended to show WAVES as a positive member
of the community in Lobitos and to expose the organization to more Lobiteños. In 2010, I witnessed a very well attended local surf competition, where local families came to cheer on their children and many other parents came out to find out how to get their children involved in surf lessons and future contests. I also helped to put on a party for young Lobiteños and their parents with music and games. These events help the organization to increase awareness about their efforts and to boost local participation.

Evidence of the effectiveness of these efforts can be found in WAVES’ 2010 report. The organization found that the majority of the community members in Lobitos have only interacted with volunteer surf tourists (not with other surf tourists) and view them favorably. These same community members maintain fears that the ‘other’ tourists will bring in drugs, loud parties, and other issues that they do not want in their community (WAVES, 2010). This shows that WAVES creates a framework for volunteers to interact with people living in Lobitos and that this interaction builds trust.

In short, the community outreach program has and continues to organize community consultations to give Lobiteños avenue to voice their concerns and offer suggestions directly to WAVES. This program also facilitates surf classes and English language classes and tries many approaches to increase community participation and trust. These activities are integral to WAVES’ mission and help to increase the reach and effectiveness of their other programs and projects.
Volunteer Program

WAVES has roughly 50 volunteers per year. As noted, this is a major source of funding for the organization’s programs and projects. The volunteer coordinator makes sure volunteers are happy, safe, and contribute meaningfully to projects. An important responsibility within this is to make sure volunteers eat well. The three major ways this is accomplished is by hiring a house manager (typically gets the groceries and cooks the meals eaten in-house), finding households to host volunteers for meals, and taking volunteers to local restaurants. In this way, WAVES ensures that the money it spends to feed volunteers gets funneled back into the community. Through the volunteer coordinator, WAVES is able to turn something as simple as feeding its volunteers into a community income generating activity and an avenue for cross-cultural interaction.

The volunteer coordinator also ensures volunteers get involved with local programs, activities, and projects. When I was a volunteer, the coordinator facilitated my involvement in English classes. This entailed heading across the street to the primary school to read books in English to students and help students pronounce the words their teacher (employed by WAVES) was working on with them that day. The coordinator also organized my involvement with helping the community to build a structure to store surfboards and do board repair, participating in surf lessons and competitions, and also in community meetings and gatherings. Coordinators organize day trips for volunteers to go out with local fisherman on their normal route to experience a day in the life of a local fisherman and also take volunteers to other nearby towns to see what life is like in areas nearby such as, Talara and Negritos. In short, the volunteer program is an integral part of
WAVES’ financial stability and mission and the volunteer coordinator ensures volunteers are well fed and immersed in projects. Happy volunteers not only return to Lobitos, but they also spread positive information about the organization online that helps encourage other volunteers to sign up for the voluntourism program. Also, when locals have positive interactions with WAVES volunteers, they are more likely to support the organization and get involved with future projects.

*Entrepreneurial Empowerment Program*

The initial phase of this program was to provide training and microfinance to local entrepreneurs. WAVES provides roughly three microcredit loans per year for small businesses, which come with entrepreneurial training administered by the program coordinator. Examples over the last few years have included financing to a local youth to purchase camera equipment and start a surf photography business; a loan to help a pharmacy owner purchase more products and install refrigerated storage; a loan and assistance to help a local family build a room to begin a homestay operation for extra income; materials to help a local shaper construct and sell surfboards; and financial support to a local women to begin a sandwich vending business. Some of these loans where being given out in 2010 during my field visit. By 2014, Aabo said each loan had been paid off and each participant had begun earning profits for their households. Furthermore, most have made further investments in their businesses. In this way, WAVES is supporting locals to run businesses rather than sitting back and waiting for
people from outside of Lobitos to come in and develop the tourism infrastructure around the locals.

WAVES has also started its own surf shop directly at the entrance to the beach to help facilitate entrepreneurial empowerment and income generation. The program coordinator manages the operations. The shop helps to advertise for Harry’s photographs and for selling surf lessons and board repairs from WAVES’ students. Tito, a local and longtime WAVES student, is now in charge offering surf lessons and repairing boards and the surf shop helps to attract clients for this enterprise. The shop also employs local people that have grown up with WAVES, which provides them with a stable salary and skills involved with operating a business. The shop also sells products including locally made handbags, recycled out of plastic bags that help provide supplemental income to two local women WAVES helped train to make the bags. The shop also sells Lobitos T-Shirts made by a local entrepreneur. The surf shop also rents surfboards which has become very popular in Lobitos for a few reasons. The first reason being that surfboards now cost between $200 and $350 USD to bring along on a round trip flight to Peru (practically the face value of a used surfboard). So many surfers traveling from industrialized countries to Lobitos plan to rent boards rather than incur this expense. Also, it is becoming increasingly popular for people living in Talara (population of roughly 100,000) to travel to Lobitos for day trips on the weekends. In 2014 particularly, I observed many people from Talara paying to rent boards and receive surfing lessons when they came to the beach on the weekends. In short, WAVES created a surf shop to help local entrepreneurs that learned to surf with WAVES and have remained interested
in staying involved with the organization. Through the shop, roughly nine locals earn supplemental income through selling their goods, staffing the shop, or providing the other services mentioned. WAVES plans to have the shop become profitable and to funnel revenues back into field operations to help support other social programs.

Environment and Health Program

As noted, 25 percent of the community desired better healthcare in Lobitos during a community consultation in 2010. WAVES therefore, asked Clemson University to research the health conditions in Lobitos and make recommendations for cost effective strategies to improve local health conditions. The researchers from Clemson suggested that many of the most prevalent illnesses could be attributed to the poor household hygiene and sanitation conditions (i.e. dirt floors in most households) that propagate communicable diseases. WAVES, in response to these findings, established a microfinance program to install cement floors in houses with dirt floors throughout Lobitos. WAVES invested volunteer contributions to fund the installation of 38 cement floors to help prevent the health and sanitation issues associated with dirt floors. While many households have already paid back their loan, some have not paid any money back and others paid some and then stopped. Many households are beginning to ask where their floors are and WAVES is in the process of trying to leverage this to help those who have not paid their loans realize that they are keeping others from getting their floors. In an informal interview, Aabo said that they were tweaking the implementation of the program and dedicating a local staff member to help with conveying the importance of
repaying the loans so that others can benefit from the installation of cement floors.

Despite the minor setbacks in terms of loan repayment, this initiative is not something a typical foreign profit maximizing firm would spend any time facilitating. The program is not profitable and it helps to give community members a lasting asset in their homes that also prevents serious illness.

WAVES also employs an environmental educator to work with students at the primary school in Lobitos. Classes are held once a week in schools to teach students about the local ecology, the importance of proper waste disposal and recycling, and to encourage students to keep the area clean so that humans can interact positively with local wildlife. In association with these classes, the environment and health coordinator organize weekly beach clean-up events, where primary school students work with WAVES surf students of all ages to pick up trash on the beach in Lobitos. During these clean-up events the environment and health teacher expresses the importance of environmental protection for both tourism and community/environmental health. In 2014, I observed a weekly beach clean-up on a Monday following a huge local festival that took place on the beach the day prior. I asked two of the twenty-three students picking up trash why they were doing it and they said that WAVES taught them that trash was bad for the environment and that they wanted to pick it up so people and animals do not get hurt. In an informal interview with Sonia, the local environmental conservation teacher, she said that some weeks there are only a few students that show up for the clean ups, but they tend to all pull together to help out after events take place on the beach that leave the beach riddled with plastic bags, beer and soda bottles. Some students have also
decided to put up signs in areas that are popular for trash dumping asking people not to continue to do so.

The overall goal of this program is to facilitate projects that improve both human and environmental health in Lobitos. The education component works to instill an appreciation for the natural resources in Lobitos and local environmental stewardship. The cement floor program is intended to address local health issues and also help people in Lobitos to take pride in their homes. Most community members in Lobitos now desire cement floors and WAVES is working to improve repayment issues and to continue to spread this project to more families in Lobitos. In the future, Aabo said he hopes to be able to implement projects geared towards recycling water and establishing sustainable community gardens. Freshwater is the resource in most short supply in Lobitos and he said he wants to begin pilot programs with biodigestors and composting toilettes, which can help to mitigate issues associated with dumping sewage directly in the ocean, as is often done, and also become a source of freshwater to be used for gardening.

Now that WAVES projects have been elucidated, the next chapter will use the FASST framework to analyze and reflect on the ability of WAVES for foster a sustainable institutional framework for governing wave resources in Lobitos. After the sustainability of WAVES’ efforts in Lobitos are analyzed using the five FASST categories, it will then be possible to discuss the findings of this study and suggest the implications this research dedicated to self-organized governance in the form of VST can offer to the DWST field.
Chapter 6

FASST Analysis of WAVES Model in Lobitos

The general conceptual framework offered in this work utilizes the SES framework for understanding surfing waves as CPRs and the creation of autonomous governance mechanisms such as VST. This SES framework was combined with an overarching TES framework to highlight the reality that wave resource governance is not a static process and constantly evolves with changing technological, environmental, and social circumstances. This framework was used in the last chapter to situate the creation of WAVES, its organizational structure, and the projects the organization facilitates. This work now shifts the focus to analyzing the relationship between WAVES and the greater community in Lobitos in order to discover what can be learned from applying the new framework offered herein to real world locality. The goal is to ask, does VST in Lobitos contribute to creating a sustainable institutional framework? Is VST similar to top down management strategies or a strict neoliberal approach to development, or does it represent something different, and if yes, how so? The FASST conceptual framework presented by Ponting and O’Brien (2013) and described in Chapter 1 was developed to move towards answering these questions. Because the FASST framework has been used in studies dedicated to management/quota allocation schemes in Papua New Guinea
(O’Brien & Ponting, 2013) and the laissez fair neoliberal model (Ponting & O’Brien, 2013; Ponting et al., 2005), applying it to an autonomous governance approach will allow for meaningful comparisons to be drawn. The normative FASST theoretical framework will now be used to organize an analysis of the data collected from Lobitos in order to situate an assessment and reflection of the operations of WAVES based on the framework’s five criteria.

The five normative categories of sustainable surf tourism offered in the FASST framework are put in place to say that if surf tourism in the developing world is going to be sustainable it must: (1) represent a movement away from a neoliberal development model, (2) it should incorporate formal planning with limits to growth, (3) facilitate cross-cultural interaction, (4) help to develop the sport of surfing at the local level, and (5) reduce or alleviate poverty. In this work, these categories will situate the discussion of WAVES’ work in Lobitos, but the order of the categories will be changed to improve the flow of the discussion concerning the sustainability of WAVES’ efforts to reduce or eliminate socially and environmentally negative surf tourism impacts. The discussion will begin with looking at how WAVES fosters cross-cultural interaction. How WAVES develops surfing at the local level will then be considered, followed by an analysis of how the organization alleviates poverty in Lobitos. This work will then ask how, or if, WAVES facilitates limiting infrastructural and visitation growth in Lobitos, before closing with a discussion concerning how the WAVES model represents a movement away from a neoliberal development model. This criteria will be taken up last in this
work because it the broadest and most all-encompassing category and will borrow from
the analysis in other FASST sections.

6.1 Systematic Attempts to Foster Cross-cultural Understanding

As if to address this category right out in front, the first pillar of WAVES’s
mission is “Cultural Exchange and Understanding.” This is because the founders believe
that “[m]eeting and working with people from other cultures is a great way to get to know
your own,” and therefore “WAVES values and encourages cultural exchange in a safe
and respectful environment” (WAVES website). Cross-cultural exchange and
understanding is facilitated though having surf tourists live in local homestays, eat local
food, participate in classroom instruction, attend local events, give surf lessons, play
sports (including surf) with locals, and work on construction projects (cement floors, surf
shops and shacks) alongside local residents.

From my own experience as a volunteer surf tourist with WAVES during the
summer of 2010 I can attest that these activities were formative in shaping my own
interpretation of VST. Volunteering with WAVES I was able to interact with the
community in Lobitos in a way that would not have been possible without working on
their sponsored projects. When I was working for multiple hours a day alongside local
WAVES students and employees helping to build what has now become a locally run
board repair shack and storage facility, I was able to break a sweat, complain about the
heavy lifting, and joke around with those who would eventually benefit from this project.
We helped motivate one another to work on the construction when it was hot, or the waves were good and no one felt like doing it; discussed the progress together over the bonfire; and talked about what the final product would be like and its potential uses.

When we would take breaks to go for a surf, the locals working with WAVES were my friends, they were not just passive locals accepting my presence as an economic benefit to the town, nor aggressive locals who wanted me the hell out of there, they were just people I had built friendships with and I was able to enjoy that bond in the water. We hooted each other into waves and discussed our rides together. I must mention that this level of interaction would also not have been possible were it not for the surf instruction that WAVES began here, but this will be discussed in more detail in the next section. In short, before I left for Lobitos and was told I was going to be helping to build a surf board repair shack, I felt like the project sounded like a marketing ploy or busy work for volunteers to feel important. But I now see that working on the construction almost every day was part of what facilitated my acceptance to the growing local surf community in Lobitos.

This acceptance was more than just exchanging smiles and conversations in the water while surfing, and I witnessed firsthand the surf community’s appreciation for the work the other volunteers and I were working on with WAVES. For example, on one occasion I observed Jim, a fellow volunteer, get beaten up in the water during a crowded surf session at the main point-break in Lobitos. Jim thought that a business owner from Lima dropped in on him and Jim shouted at the Peruvian riding the wave in front of him. When the business owner from Lima paddled back out after finishing riding the wave, he
swam over to Jim, punched him in the face a few times, then took the leash of Jim’s leg and sent his board sailing half of a kilometer to shore without Jim on it. In most cases like this, the foreign surfer who gets beaten up pretty much has to avoid the aggressor for the rest of his trip or just leave town. In this instance, however, I witnessed Jim be taken by Oliver, the local surf program director, and three students from WAVES to confront the person who had punched Jim in the face. The aggressor was informed that Jim was a volunteer with WAVES helping to build a surf shack and teach English and surfing to the local students and they wished there would be no further problems. After this confrontation the volunteer and the man who punched him apologized to one another and everyone was able to coexist in the water and in the town peacefully for the remaining days of the volunteer’s service. This instances indicated that volunteer service really is appreciated by the community and that volunteers have access to community benefits in a way that other visiting surfers do not. Had what happened to my fellow volunteer happened to another traveling surfer, they would have most likely had to leave town because it would have been difficult for them to avoid further issues in such a small town. But working with WAVES helps volunteers to earn a privileged space in the community and interact in a more sincere way with the locals.

Working with WAVES also granted me access and welcome into local homes in both Nuevo Lobitos and Barrio Primavera. Eating meals in the houses of local families was particularly valuable. The volunteer coordinator set up traditional meals in different households so we could eat the way families in Lobitos did and ask questions directly to people living in the community. During these experiences, other volunteers and I took a
We participated in pre-meal prayers and heard the latest town gossip. These experiences helped the other volunteers and I to understand the living conditions in Lobitos better than had I just gone as an independent traveler and ate in local restaurants set up for tourists. Through this in house cross-cultural interaction, I was able to understand that just because families earn their living off of fisheries that does not mean that they eat elaborate fish feasts at home. More often than not, the local fisherman sell off the large fish to a cooperative that distributes the catch to nearby cities (principally Talara) or to local restaurants, and the fisherman eat the fish that were too small to sell in their houses, typically in basic soups and sometimes with rice, beans, corn, or potatoes. I observed in this dry coastal desert town those running surf tourism businesses could afford to truck in potable water in times of scarcity, but that these trucks almost always passed by the houses that the local fisherman lived in. I was able to experience how the locals still found ways to get by with less water and electricity than I thought possible. I also observed that the local kids had the same surf magazines that I had at home, dreamed of surfing the waves that they saw in them and had pictures of their favorites in their walls, just like I did. I could hear a young surfer’s mother yell at him to finish his homework as he was running out of the house to sneak in a few waves before sunset and remembered sneaking out to play basketball and soccer with my friends when I was his age. I could hear the constant thumping of the oil drilling platforms in to the ground, smell the burn off coming from them, and look into the eyes of my new local friends and understand that this was just a part of living in the area.
Also interacting with the house manager, Earl, in 2010, who also prepared traditional coastal Peruvian dishes like ceviche in the WAVES house, I learned a great deal about how he saw this opportunity as a stepping stone for building towards a more lucrative career working in Peru’s growing cruise ship industry. He was happy to work with WAVES, but was more excited about the opportunity to use his experiences interacting with foreigners to get out of area. While I enjoyed living in the small town while working in Lobitos, I learned a great deal about how some, especially Earl, wanted very much to experience life in another setting. This interaction helped me to understand that WAVES was not only offering waged work in the community, but also helping people work towards careers in other places. This interaction also helped me to not idealize the living conditions in Lobitos, but gain a better sense of why some people wanted nothing more than to get out of the town.

Through interacting with the community members working with WAVES in many different capacities, other volunteers and I were able to enhance cross-cultural knowledge and understanding, which we have all benefited greatly from. We learned to see people in Lobitos as hard working, fun loving people, trying to do the best they can with what is around them – not charity cases. In the new and old surfers in the area, we felt more similarities than differences, they, like us, just love surfing and are trying to figure out ways to incorporate riding lots of waves in to their plans for the future. The locals who welcomed us in to their homes were just hard working people looking for ways to use surf tourism to supplement their incomes and to hedge against declining local fisheries. In short, VST in Lobitos, helps tourists to interact with locals in both
formalized and informal settings that leads to more meaningful interaction than conventional surf travel. Most of the volunteer tourists I interacted with went in to the processes wanting to surf a great deal, but to not be perceived as wasting time on their semester breaks or gap year before college. They left wanting to continue to help the local people living in Lobitos because they came to believe they understood the realities

The best day I had volunteering was during the surf class taught to the kids of Lobitos. Till this day, I think that was one of my best days in Peru and in general in my life. We all went down to the ocean with surf instructor Seth, Jackson, Alicia and myself with 8 kids (around 7-8 years of age). The excitement of these kids was palpable. At the beginning of the lesson the kids along with the WAVES staff went around the beach to pick up garbage and put in a bag that was properly disposed at the end of the class. In this way, the kids learn the importance of taking care of the environment. After giving a short lesson on land, Seth and Jackson took a board and a kid each and went into the ocean. Alicia and I were responsible to pick up the kids at the end of the surf. Some of those kids are not really good swimmers and it is fundamental for adults to be there to pick them up. One of the kids managed to catch the wave and stood up. He saw me at the end of the surf and instead of jumping in the water, jumped on me and I caught and hugged him. He couldn’t stop laugh (full of joy and life) and I couldn’t be more grateful for that moment.

WAVES also involves Lobitos teenagers in working in the surf shop. Some of them shoot pictures for surfers that come to Lobitos, some others, with the help of WAVES, are becoming certified surf instructor and some others, after learning to surf thanks to WAVES, became so talented that even are participating on local and national surfing event sponsored by WAVES.

WAVES also helps improve living conditions for the inhabitants of Lobitos. They are helping with building their house floors. Increasing the level of hygiene in those houses. All these great work are an impact in Lobitos. The community loves WAVES volunteers and are extremely appreciative of their work. I went to wish goodbye to the family living opposite to the WAVES house (which also run a beer shop) and the old lady running the shop couldn’t stop hugging me and blessing me. One of those moment I will cherish forever too.

I left Lobitos with a sad heart but thankful to have met so many great people in such a short time. WAVES would not be possible without the incredible work of Dave, Tai, Seth, Kate, Alicia, Jackson, Dominic. Truly incredible people that I feel privileged to have known.

If anyone reading this post is still wondering if go to Lobitos to volunteer, please I assure you, you won’t regret it, leave fear behind and go to Lobitos with an open heart and eager for adventure!

Figure 6.1 Excerpt from a Volunteer Blog (courtesy of WAVES)
better on the ground and felt like they made new friends who could benefit greatly from having more financial and educational resources. We all learned to not only look at places in the developing world in terms of what they do not have, but also by what they do have, and to see wave resources as belonging to the people who live around them in common and not just to the loudest/most aggressive locals or the foreign entrepreneurs with the most capital. All of WAVES’ 300 some alumni got the opportunity to learn that surf travel is never as simple as just going to get a couple of waves and getting out, there are many impacts to consider and people’s lives being changed in many unintended ways. This plays in to the overall dynamic of forming and spreading a surrounding gaze in DWST as the volunteers return home and spread the word about their experience on social media (See Figure 6.1). Most volunteers I interviewed also suggested that they were going to seek out similar experiences with VST organizations operating in different communities and said they would always think about surf travel differently.

The locals also benefit from interacting with volunteer tourists. For one and perhaps most directly, local surfers build and maintain networks with the tourists they meet using social media to drum up their own support for the business enterprises they start. Harry began his surf photography business with help from volunteer tourists to both learn how to take good photos of people surfing and to buy the necessary equipment. Now he sells photographs over the internet and receives referrals to take pictures of traveling surfers. Another student has started a small hotel and uses social media and connections with WAVES alumni to advertise. Other direct benefits include learning skills such as surfboard repair and English speaking, which help WAVES students be
involved in the growing surf industry in other ways. In an interview with Doug, a WAVES student, he said that the English he learned, and the practice he got speaking with volunteer tourists helps him to solicit rides for the transport service he works for, send tourists to his mother’s restaurant, and he also plans to use it to operate a hotel. This ability has therefore helped Doug to earn extra-income and support his family’s businesses. WAVES volunteers also help to spread the word about this surf shop and services to other surfers and this helps expand the network of people locals can engage with and potentially earn income from.

Other than these more tangible benefits, locals come to look beyond a homogenous view of surf tourists as is common in many new DWST locations. Because many conventional surf tourists surf for multiple hours a day and spend the rest of the day relaxing in hammocks, drinking and eating, many surf tourists are seen as rich, lazy, and careless. Through informal interviews with Oliver, the surf program director, he said that he has learned from interacting with volunteer tourists that some surfers really do care and want to help and that has given him encouragement. During one interview he said that some volunteers undoubtedly contribute a great deal more time and energy than others, but on average, he has come to appreciate them working with WAVES rather than just going and staying in cheaper hotels that do not benefit the Lobiteños as much. This sentiment goes beyond only those who have adopted surfing in Lobitos and work with WAVES. In WAVES’ 2010 report, the organization discovered that the majority of the community members in Lobitos have only interacted with volunteer surf tourists and view them favorably. These same community members maintain fears that the ‘other’
tourists will bring in drugs and other issues that they do not want in their communities (WAVES, 2010). This is further evidence that through WAVES, relationships are forged with the community, beyond only the surfers, which differentiates volunteer surf tourists from other tourists in the area.

The only potentially negative thing observed in the cross-cultural interaction category between WAVES and the local community is the occasional instance of too much interaction between host and guest. There has been a few instances of WAVES employees and volunteers dating members of the local community. Some WAVES workers dated locals for short periods of time while in country, and others decided to stay in Lobitos and peruse more serious relationships with locals. This is neither a good nor bad thing intrinsically, but some locals indicated in interviews that this makes them leery of the workers’ intentions. The responses to this issue also revealed a key contradiction worth mentioning. The vast majority of these instances during the study period occurred between female WAVES employees and male Lobiteños. The ones who had short-term relationship and left town were typically demonized for being floozies or “Gringa Locas”29 who used local men for sex, for entry into the surfing community, surf lessons, comfort, or Spanish language practice. Many felt sorry for the men left behind and often spoke poorly of the women who had left. The women who stayed in Lobitos to marry local men or date them for a long time period, some of whom started businesses in the area, are often seen as taking away good men from the local women and using them. The goal here is not to suggest that either of these two types of relationships are bad, or that

29 Loosely translates to, “crazy American girls.”
one is better than the other, only to show that some cross-cultural interaction is viewed negatively by many in Lobitos.

Despite this issue, the findings in this section support Ponting and Wearing’s (2009) claim that volunteer surf tourism facilitates meaningful cross-cultural interaction for all parties involved. This section illustrated the benefits of such cross-cultural interaction brokered by WAVES in Lobitos and showed how both volunteer tourist and local people living in Lobitos obtain social, cultural, and symbolic capital as a result of interacting with one another. Not only do they interact while in country and collaborating on projects, but volunteers get to represent themselves as helping poor people and having surfer friends in the Peruvian coastal desert. Local surfers in Lobitos build networks of visiting surfers from around the world, which connects them to new opportunities and business referrals and also is a form of social capital. In a small community like Lobitos, having friends in other countries is a big deal in local social circles. WAVES is not an all-inclusive holiday where surfers interact with locals who cook and clean for them, WAVES facilitates collaboration and interaction with the community through things such as having volunteers to go out on fishing boats with locals on their daily run, participate in classroom learning, build things, and eat in local houses. To close out this section, WAVES employs a governance approach that does facilitate cross-cultural understanding. Continued commitments to cross-cultural interaction will continue to produce mutual benefits for both volunteer surf tourists and the community members they interact with through WAVES.
6.2 Developing the Sport of Surfing at the Village Level

Developing surfing at the local level is argued to be an essential pillar in sustainable surf tourism. In order for locals to understand and care about surfing resources enough to want to protect them, it is critical that they have a tacit experiential knowledge of surfing (O’Brien & Ponting, 2013). For surf tourism to occur with, rather than around locals, having a community of committed local surfers is important. WAVES facilitates this by teaching locals to surf and using its non-profit status and international scope to solicit surfboard donations. Surfing at the local level also provides a healthy community activity with many social benefits that will be discussed.

With WAVES, transmitting surfing knowledge to interested locals is a centerpiece of their long-term development goals in Lobitos. Aabo, said that his plan to start the organization began with the simple idea: “wouldn’t it be cool to teach some of the local guys in Lobitos to surf.” During an informal interview, Aabo said when he started visiting the area surfers were starting to trickle in to Lobitos from other areas of Peru, but there were hardly any dedicated tourist services in the area and no locals were in the water surfing. WAVES began more with Aabo wanting to spread his love for surfing to the community that he felt was historically left out of benefiting from the resources in Lobitos. The three most imposing views when travelers arrive in the area are the giant oil platforms, military barracks, and the tremendous surf. The locals have been historically left out of the oil industry (and benefits from the land lease payments) and
military jobs, but the goal was to try and get the community involved in the surf tourism industry that he correctly assumed was on the way.

In chapter two, when discussing the quick adoption of surfing in California following initial surf demonstrations, it was mentioned how this had a great deal to do with the fact that in the surrounding middle class suburbs, swimming was already something that was consciously taught in community pools as a healthy form of exercise and an important aspect of social capital (Westwick & Neushul, 2013). The first surfers in California, therefore, had money, time, and swimming ability when they first encountered surfing in the early 20th century, whereas in Lobitos all three were in limited supply when surfers first started showing up following the mudslides that formed the surfing waves in the late 1990s. Aabo, therefore, started with the goal of trying to supply those things and to see where things could go from there. Because freshwater in Lobitos is extremely scarce and capital would be hard to come by, the first step was to build a swimming pool in an area between the low and high watermark so that the pool would fill with salt water during full moon high tides. This way freshwater resources would not be taxed and there would be a safe area with still-water to teach swimming because the surf is often large and the currents are strong in Lobitos. WAVES began as a non-profit organization to help solicit tax deductible donations for the creation of the swimming pool, as well as for surfboards, wetsuits and other equipment for the community in Lobitos. In short, developing village scale surfing was the idea in which this particular VST organization was built from. It was only after dozens of students began showing up to each session for swimming lessons and for subsequent surfing lessons that WAVES
started to mushroom to the point where volunteers were asked to come down and help give surfing lessons. Only following all of this did WAVES begin to conduct community consultations to try and figure what other community desires WAVES could help to mobilize support for.

WAVES continues to teach surfing lessons and keeping its fleet of boards in good repair to ensure locals will have surfing equipment off into the future. While the students WAVES has helped to surf since 2007 now show tremendous skill in the water, those who were not initially encouraged by their families to spend time surfing are entering the programs slowly over time as the community begins to see benefit in the hobby. The local community is well aware that surf tourism will be the driver of development in Lobitos and knowledge of the activity can be used profitably, as has been mentioned by the surf related businesses started by some of WAVES’ students, employment in the surf shop, and lucrative local positions directing field programs. Because the surf equipment is in such high demand, WAVES has built in a good behavior caveat for board use, insisting that all students who attend weekly beach clean-up gatherings and have good school attendance will have access to surfboards as a way to leverage the demand for boards and wetsuits. This has contributed to surfing becoming a healthy after school program in Lobitos and will help surfing to be used as a bridge for the benefits mentioned above in the WAVES program. WAVES has also began a donation platform to get soft-top surfboards in Lobitos for safer learning conditions. Further, WAVES now hosts local surf competitions for local surfers of all ages and skill levels and there are many local families who come to watch their children and their children’s friends surf in these
competitions. Surfing has gone from something only outsiders did in 2006 to something a good portion of the community comes together around. The early surfers are now starting surf related businesses and competing in national surf competitions, and surfing has become a key starting point for facilitating meaningful and long lasting cross-cultural interaction.

Village-level surfing has also helped facilitate empowerment for women in Lobitos. While some youth lamented during interviews that surfing has overtaken soccer as a hobby to the point where it is hard to get a pick-up game going whenever the waves are good, surfing has included females in these communities in a way that soccer has not historically. In Lobitos, female surfers are showing great promise and becoming empowered to work in the local surf industry. As mentioned previously, many young females in Lobitos are encouraged by the female world surfing champion and surfing hall of fame member, Sofia Mulanovich, who is a Peruvian surfer that makes frequent visits to Lobitos to encourage female surfers. Many female surf students working with WAVES expressed to me their admiration for Mulanovich and said that meeting her has inspired them to want to surf as well as the guys. More research is needed into the long range impacts of this facet of village level surfing, but it has been suggested elsewhere as a positive benefit in local communities (Comer, 2010; O’Brien & Ponting, 2013) and deserves mention when discussing WAVES. While I was conducting research in Lobitos, surf classes were attended equally by males and females. And skilled female surfers were confident in the water when surfing alongside of their male counterparts. Many male surfers also said during informal interviews that they respected how well
many of their female friends could surf and I witnessed male Lobiteños helping local female surfers to get waves when the conditions got extremely crowded. This might suggest that being a local surfer helps put female surfers in a privileged position in the community, something different than adhering to traditional gender roles. I do not wish to oversimplify the gender implications of increasing surfing at the local level, because as Godden’s (2013) work on gender in Lobitos indicates, this is not a simple topic to understand, it is very complex and nuanced. At the very least, however, the surf program has been inclusive of women, and many have felt empowered through access in the local surf community.

As Wood (2009) suggests, evidence of surfing space becoming an area for cultural fusion and interaction is also evident in Lobitos. I observed surfers from Lobitos interacting with surfers their age on vacation from Lima on many separate occasions. These vacationers from Lima are typically light skinned wealthy elites of European descent who show up to Lobitos with brand new wetsuits and surfboards. Even though Lima is often criticized by Peruvians as the powerful core that sucks the wealth out of other regions, in the water, Limeños and Lobiteños appear to be equal. In informal interviews with WAVES students on this topic, I was told that the people from Lima know they have to show Lobiteños respect in the water, and as long as they do, everything will be fine. One student said that he likes showing the rich kids that he can surf better than they can with his old board and hand-me-down wetsuit whenever he gets a chance. Despite the little bit of trash talk common in most sports, I typically witnessed members of these very different social classes interacting cordially with one another and
acting like friends in the water, discussing waves, and complimenting one another on their tricks. While members of Club Waikiki in Lima hire poor Peruvians to put wax on their boards and carry them to the water, in Lobitos, rich and poor interact in the water as friends and equals. I am sure there are socio-cultural tensions imbedded in the type of interaction I am describing, but through multiple observations these tensions never manifested into any form of visible conflict. This type collaborative and friendly interaction between different socio-economics groups in the water was surely facilitated by Lobiteños learning to surf, and without this ability this sense of empowerment may not have been possible. As Wood (2009) says, surfing space will remain a key setting for cultural fusion and mediation as Peru continues to develop and change. Without WAVES helping to teach locals how to surf, wealthier Peruvians from big cities would most likely have taken over the waves in Lobitos, rather than being forced to interact and share with the children of local subsistence fishermen. Developing surfing at the local level therefore has helped to facilitate meaningful interaction between often conflicting classes of society in Peru.

In short, the WAVES model of VST encourages local participation in surfing and helps to spread surfing knowledge to a community that may not have otherwise had the financial resources to enjoy the activity. This has been found to act as the base for meaningful and mutually beneficial cross-cultural interaction, which helps local surfers develop entrepreneurial capacity, encourages school attendance, becomes a gathering place for the community, and a source activity for gender and cultural empowerment. Surfing is now a major part of the community fabric in Lobitos and surfing ability gives
local surfers a sense of pride to live in Lobitos and a sense of ownership over the wave resources. More and more community members are getting involved with WAVES’s surf program every year and the organization is committed to allowing everyone who desires access into the program a space.

6.3 Measures to Alleviate Poverty

WAVES increases economic opportunities and empowerment through education and support for local entrepreneurs. A crucial component to both of these missions has been to facilitate English language classes, which as mentioned previously, were requested by the community and have been well attended. Although it is difficult to demonstrate empirically the indirect poverty alleviating potential (some direct benefits have been shown throughout this analysis) of these classes, they should not be underestimated and should be given more attention in the future. Business training has also helped locals become confident in starting their own businesses, has helped lead to successful repayments of micro-credit loans for business owners, and also has led to the start of enterprises that have utilized other industries in the area to deliver their services in almost all cases in Lobitos. Local restaurants have begun purchasing fish directly from fishermen in Lobitos, saving local fishermen the need to sell their catch to cooperatives that transport the fish to markets in nearby cities. This thereby helps fishermen to earn higher pay from the sale of their catch. I also observed many cases of tourists finding out about hard to find local restaurants in Barrio Primavera from WAVES volunteers and
other business owners. Many tourists have also been informed about different local transport options that would otherwise be difficult to sort out. This type of communication and local-to-local referrals help to spread financial benefits around the community. Also by bringing volunteers to different households to eat lunch and dinner and by setting up volunteers to go out with local fishermen on fishing excursions, the organization directly helps to spread money to other community members and develops new avenues for earning money domestically.

In a series of informal interviews with Harry, the aspiring local surf photographer, it became clear that the money he earned taking photographs of foreign surfers had many very important impacts in his life. As mentioned in Chapter 3, traveling surfers have become somewhat obsessed with representing themselves surfing in far off places – it is almost integral to the travel experience. While in Lobitos, during informal interviews with voluntourists and other non-volunteer surf tourists I found that most were willing to pay between $5 and $40 dollars for a good picture of themselves surfing in Lobitos and some paid more than $60 USD for an hour photography session. This is a very lucrative business in many surf tourism destinations, but the business is typically undertaken by migrant entrepreneurs who already have surf camera equipment and computers to transfer the images. WAVES’ assistance to Harry represents an approach to development that is more inclusive of the local population. Harry now has a personal website and has been hired by a new industry group to take pictures for online marketing materials advertising hotel options in Lobitos called LotitosHoteles.com. Harry has been working with WAVES since he was 14 years old and his successful business venture shows how a
combination of learning to surf, English education, and financial support can help a local kid grow into a man with income earning potential in the tourism industry beyond a menial service job in a foreign owned hotel or restaurant.

WAVES has also helped to facilitate the mobilization of the community in Lobitos to outline their own needs through community consultation, which has helped to build an infrastructure for future tourism planning. The results of this community organization is evident in Lobitos. Beginning with the community petitioning the local municipality to stop the looting of historic properties in the area in 2008 and continuing with the community voicing how they would like to see surf tourism benefit the youth in Lobitos and not get out of hand and lead Lobitos on a path similar to Mancora farther north. More must be done in the future, but a case can be made the groundwork has been set for future efforts to facilitate the aims the community has begun to articulate.

WAVES is currently in the process of implementing their most direct effort to alleviate poverty in Lobitos – transitioning to a 100 percent local field staff. Currently foreigners occupy all but one of the six high level positions with WAVES in Peru (See Figure 5.7). I noted the challenges associated with implementing this transition earlier, but the potential benefits can be highlighted with a discussion of the benefits Isabell has received through high-level work with WAVES. Isabell, who is currently hired full time by WAVES and is poised to take over as site manager has already received many benefits from the constant pay check from WAVES. Natalie said, “it has been amazing to watch her (Isabell) become empowered by the extra earnings, she has so much more confidence and she is now able hire someone to help with the housework.”
Isabell has been able to pay off her cement floor installation and hires other locals further spreading the benefits of her employment with WAVES. In 2014, I observed her bringing her entire family to the local pizzeria where many surf tourists hang out to have a family dinner. This shows how her salary helps her do things her family was unable to do in the past and also is evidence of how the money she earns helps to support other local businesses. The site manager position will entail an even higher pay increase and it is certain that she will spend the earnings locally, as well as save for her children’s education.

It remains to be seen whether the transition to 100 percent local staff is feasible and will take place in the desired timeframe, but Isabell and the other WAVES employees (teaching environmental education, surf lessons, and board repair; working in the surf shop, selling things to the surf shop, or selling photos through the surf shop) are all earning much needed funds directly from involvement with WAVES. If all of the highest paid positions were held by Lobiteños, the multiplier effect would most likely be quite high. This is not to say that foreign employees do not spend money in the town, but local employees would spread the revenue to local industries that operate outside of the growing tourism economy.

DWST will never be a resource that can boost an entire community out of poverty. As I observed in Lobitos, some families do not encourage their children to work with WAVES and see surfing as a distraction from the work ethic they hope to instill in their children. Beyond this, not all families can enter the DWST market nor do they all want to. Further, many Lobiteños have entered the surf tourism market without help or
support from WAVES. Also as noted, many of the new businesses are run from people outside of Lobitos. It is more likely that a Lobiteño will open a restaurant or a small store out of their house than operate a profitable hotel that can compete with the well-capitalized options being erected by tourism entrepreneurs from various parts of Peru and beyond. While WAVES undoubtedly has helped many locals earn income in new and creative ways, more research is needed to understand the proportionality of the poverty alleviating impacts associated with WAVES.

The question of the future will be how well can WAVES support social welfare on a community scale in a way that is not exclusive to those directly linked to the organization’s programs or services? The cement floor program can be seen as an attempt to do this, but the challenges faced in this project also are indicative of the need for WAVES to tweak its implementation of larger communitywide programs. With that said, all members of the community are welcome to join all programs and WAVES constantly seeks to provide community outreach to inform people about their programs. More work is needed, however, to do a better job of conveying WAVES’ overall mission and to explain how each program contributes to helping the locals in Lobitos. As a part of this effort, WAVES even moved their offices from Nuevo Lobitos to Barrio Primavera in 2010 in order to have more visibility and connectivity with the local fishing community. In short, WAVES provides direct and indirect poverty alleviating mechanisms and does help to build an infrastructure for engaging communities living near high quality waves to begin to ask how they wish to benefit from their local wave resources – a crucial component of any poverty alleviation strategy.
6.4 Formal Long-term Planning with Limits to Growth

In the traditional sense, there is no formal long term planning with explicit recognition of limits to growth brokered by WAVES to date. WAVES has remained apolitical on this issue, but almost every employee interviewed admits rapid growth is a concern and is responsible for changing the ‘vibe’ in Lobitos. When discussing growth in surf tourism it must be understood as being comprised of two important facets. The first being growth in terms of visitation, or people out in the water surfing. This includes locals, outside entrepreneurs, tourist staying in Lobitos, and people commuting in from other parts of Peru (Peruvians and foreign tourists based in other parts of northern Peru) to surf for a day and leave. The second component of surf tourism growth is in the tourism infrastructure. This includes new buildings (principally hotels and restaurants), roads, transportation options, and tourism services. Many recommend that the first growth facet should be addressed with surf quota schemes (Buckley, 2002b; Hugues-Dit-Ciles, 2009; O’Brien & Ponting, 2013) and the later with putting in place caps on development and with zoning policy.

WAVES has not, however, attempted to conduct a carrying capacity assessment of the surf-breaks in Lobitos to be used to discuss creating any type of quota scheme or other growth limiting policy for any surf-breaks in Lobitos with the municipality. As mentioned previously, quota schemes represent a form of resource privatization where a certain number of surfers are allowed at a surf break at a given time, based principally on
the socio-psychological carrying capacity (Buckley, 2002a) of a surf-break. Under this scheme, a certain decided upon number of surfers are typically charged a fee for the right of exclusive access to the surf-break. O’Brien and Ponting (2013: 166) say this method:

 keeps surf tourist numbers at a manageable level for host communities without overstretching resources or negatively impacting upon daily life. Equally, for visiting surfers, the chance to surf crowd free while also experiencing a unique culture contributes to a truly unforgettable surfing experience.

The fact that WAVES has not attempted to broker such a quota scheme, or more general caps on development (i.e. limit the number of hotels that can be constructed or deciding upon a maximum area occupancy) with the municipality and business owners, can on its face signal that the WAVES model in Lobitos does not address the growth limiting criterion of the normative FASST framework. WAVES does not, therefore, represent a movement away from a neoliberal unlimited growth imperative, but it is more of an effort to empower local stakeholders’ access to the growth process. While WAVES does help to shift the historic power balance in DWST by helping locals to be entrepreneurs, this does not necessarily ensure that planning with consideration of limits to growth will occur. In reality, WAVES itself directly contributes to surf tourism growth by bringing in many volunteer tourists, as well as, by teaching locals to surf and helping to incubate new businesses. In Chapter 3, I discussed why foreign entrepreneurs often discourage teaching locals to surf and providing them with equipment in order to prevent local surfers from contributing to crowding in the surf and bringing down the value of tourism products. Furthermore, evidence that will be provided in this section suggests that growth in the tourism infrastructure in Lobitos is being driven by entrepreneurs from outside of
Lobitos and this development is happening in an unplanned ad-hoc manner. This suggests that VST in Peru does not have the capacity to change this dynamic that has been criticized for leading to deleterious social and environmental impacts in other areas studied.

One certainty is that surf tourism is growing rapidly in Lobitos. In the 2004 edition of *Lonely Planet: Peru*, for example, Lobitos was not even mentioned and now the area draws hundreds of tourists each day and the tourist infrastructure continues to expand. Godden (2013) says that surf tourism in Lobitos grew from a single hostel in 2000 to twenty lodging options in 2010. Some of these lodging options she classified as informal (not regular hotels or hostels), meaning seasonal residents rented out rooms in their houses. In 2014, I counted 36 lodging options (See Appendix C for comprehensive list and owner countries of origin), but because this number left out informal rentals, it is safe to assume that lodging options doubled between 2010 and 2014.

Figure 6.2 supports this claim and shows how development has been growing steadily as the surface area covered by infrastructure is shown to have grown considerably since 2003. Lodging options now range from boutique hotels to surf camp/dorm style facilities to informal rooms for rent in people’s homes and homestays. Costs range between $4 to $80 USD per night. Almost all have been opened by Peruvians from outside of Lobitos. At least four are owned and operated by couples or business partners where one proprietor is Peruvian and one is from another country (Spain, Argentina, Australia). One hotel is owned and operated by a Brazilian and one by a proprietor from the US. Lobiteños operate one homestay (construction financed by
waves) and one known house rental (there are most likely a few more of these informal options offered by locals). Most of the foreign owned businesses required building new structures (typically with cement, which is very water intensive) and some operations involved restoring old colonial houses.

Figure 6.2 GIS Map of Infrastructural Development in Lobitos (WAVES archive)

Figure 6.2 is illustrative of infrastructural growth in Lobitos. The figure shows a common trend in tourism growth where one section of a town grows with tourism infrastructure and people begin to migrate from other areas to work in the tourism sector, facilitating growth outside of the tourist center (Hunt, 2011). The large black circle on the left hand side of the graph shows Nuevo Lobitos, the section of town where the majority of new hotels have been constructed and are in the process of being constructed. This is the area with ocean vistas and was scantly populated prior to the influx of surf tourism. Figure 6.2 shows this area having tripled in size when comparing satellite
imagery from 2003 to 2013 to reflect the increasing surf tourism infrastructure following the 1998 El Niño event. Figure 6.2 demonstrates clear sprawling growth in Nuevo Lobitos as the infrastructure spans out in to previously undeveloped territories. To parallel this growth, the growth in Barrio Primavera (the red circle at the lower right hand side) also shows growth, as more Peruvians from neighboring areas come to work in the tourism industry. This infrastructural growth is less geographically dispersed and this perhaps indicates a growing population density in Barrio Primavera. This growing population density in Nuevo Lobitos threatens already scares resources as a peri-urban center continues to grow in the area where the local fishing community has historically lived. While tourism is growing in the colonial and military sections of town (area not circled in Figure 6.2) this is not shown in the figure because this growth involves restoring existing structures as is not new construction on previously undeveloped land. Regardless, when looking at Figure 6.2 and Appendix C, it is clear that surf tourism in growing rapidly in Lobitos and that this process is being driven by Peruvians from other parts of Peru.

As mentioned in the methodology section, when I returned to Lobitos in 2014 I conducted informal interviews with hotel operators from outside of Lobitos. This was to get a better sense of why they brought businesses to Lobitos and how they specifically contribute to visitation growth. As part of this effort I interviewed the managers of La Casona, a dorm style hostel that offers beds for rent in shared living quarters in a restored colonial house that used to belong to the military general. During my field visit to this hostel it was at capacity with twenty-four guests from Brazil, the US, the UK, and
Argentina. The hostel also offers work exchanges for backpackers (free lodging and food in exchange for working at the hostel) and this also brings in budget travelers to Lobitos from other areas of Peru. One of the operators said that she fell in love with the historic charm of the property and the panoramic views of the Pacific. The proprietors could have built a more upscale hotel, but thought surfers coming to Lobitos would be more likely to want to pay a bit less and be able to stay in the area for longer periods of time. I also interviewed the owner of El Hueco surf lodge, which also has a capacity of around 25 guests and was nearly full during my site visit with international clientele. Both proprietors understood that they were contributing to growth in the area, but argued that more tourism was good for Lobitos. Chrisoph, the owner of El Hueco, is from Lima and told me that if the area ends up getting too crowded that he might be inclined to try to open another boutique surf hotel somewhere else to try and keep in front of the crowds. I offer these two examples to show that people from outside of Lobitos are building and restoring structures and have been successful at increasing international tourism visitation to Lobitos.

Further evidence of growth in Lobitos is the way in which the town is connected to the city of Talara, the entry point to Lobitos. In 2010 there were only three minivans that took people between the two areas. They sat at two bus stops and left whenever they were full. Trying to get a ride to Talara often took hours. I literally had to sit at the bus stop and wait for there to be enough people to fill the bus before the bus driver would leave either for the city or to return to Lobitos. Now there are two companies servicing this route with a fleet of more than 14 vans and they drive around honking their horns.
looking for passengers. The competition between these two growing transport companies make it now very easy to connect with Talara. All you have to do now is walk towards the main road and someone will pick you up and give you a ride.

This growth has led to more crowding in the surf, as well as, issues with sewage treatment, freshwater access, and cars driving on the beach (impacting the crab population). At least three people interviewed mention how they no longer see crabs on the main beach in Lobitos and almost all said the freshwater issue is a major challenge. I also noted that the crab populations very healthy on the beaches in Lobitos that are geographically inaccessible by road, but almost nonexistent now on the main beach where many surfers now park. The freshwater issue is especially a concern. For one, constructing hotels with cement require a great deal of freshwater in the mixing process and there continues to be a constant stream of hotel construction. Also, most if not all new hotels are vigilantly trying to grow aesthetic plant-life requiring lots of water, vegetation that would have no chance of growing in Lobitos on its own. This is symptomatic of the virtualism described by West and Carrier (2004), in that local entrepreneurs are trying to make their hotels resemble the stereotypical tropical get-a-ways surf tourists have experienced in Hawaii, Central America, and Southeast Asia at the expense of extremely scarce freshwater resources in this desert town. Furthermore, these entrepreneurs are trying to provide tourists with the amenities they are used to, such has hot water and long showers, which take a huge toll on freshwater resources. There are already issues of freshwater theft in Lobitos and businesses paying for expensive truckloads of water to fill out their tanks because the municipality cannot provide the
amount of water demanded. Hotels connected to the municipal water system get water delivered for one hour every three days, which they use to fill large tanks, when the tanks are filled, however, the water continues to run and much of it is wasted. In this sense, businesses and households either have more water than they can use or do not have enough.

In an interview with the former field director, she said that the water issue is emblematic of the relationship between the community (local people and business owners) in Lobitos with the municipality. She said one person from the municipality is in charge of turning the valve to provide water for the entire town. This person is not consistent and people never know when or if the water will be turned on. Oftentimes local business owners have to bribe this one person in order to have him turn on the water after long spells when it has not been turned on. Many of the business owners and employees working with WAVES suggested that the municipality earns a great deal of money in concessions from the Chinese oil company currently operating in Lobitos, but uses this money to pay high salaries to local government officials and does not do much to improve the living conditions in Lobitos. Many also suggest that the municipality has no jurisdiction over the federal lands that many of the new business are squatting on and is too tied up with a re-election campaign to try and control development in anyway. In short, many people I interviewed said that the current municipality representatives are happy with the status quo and very unlikely to take proactive measures for change.

Another big environmental concern is that municipality does not have a proper waste or sewage disposal scheme. As a result many dump their trash wherever it is
easiest. Because Lobitos is extremely windy, trash blows around and gets stuck in bushes and riddles the landscape. Most dump their sewage directly outside of their properties with little treatment. In fairness, some built rudimentary pits for their sewage and try to prevent leaching, but for the most part these are ineffective and sewage runs directly into the water. It has gotten to the point where there is an area of Lobitos many volunteers called “shit’s creek.” It is a river of sewage that runs down from Barrio Primavera directly to the beach and this river must be crossed to walk from Nuevo Lobitos to restaurants in the Barrio or to get to popular surf breaks in the north. You know you are approaching this river because the smell is often quite imposing. While there is no known data on fecal coliform volumes in the water in Lobitos at present, as hotel and occupancy continues to grow, without drastic measures these issues will worsen.

Of even more concern is the way in which each of these environmental issues will be exacerbated by the amount of land currently being fenced off and either claimed or purchased. Many of these plots are home to hotels in varying stages of construction. When I asked the Aabo if the local municipality has been supporting WAVES in anyway, he said that he felt they would like to, but that they have their hands tied with the issue of land grabs, which far outstrips their capacity at present. Under current Peruvian law, anyone who fences off a parcel of land that is not owned by the municipality (most of the land currently being built on falls in this category), builds a structure on it, and occupies it for five years becomes the owner of that land. I was also told that the municipality is less likely to try and limit surf tourism growth than it is likely to try and find better ways to bring in operating revenues as a result of this growth. The influx of tourists has made
it lucrative for locals and foreigners alike to attempt to grab land with easy access to and
views of the waves. In an informal interview with a Doug, a former WAVES student, he
said that after getting a job for a private company guarding property others had claimed
in order to help ensure their ownership rights, he and his father decided to claim a section
as well. His family now owns a parcel of land in Nuevo Lobitos and they are currently
trying to sell a portion of it in order to get funds to open a hotel on the remaining land.
He said that he is sure that Lobitos will become just like Mancora in 20 years, and even
though he is upset about this he said that he has a child of his own on the way and has to
do what he can to earn a living for his family. Bill, an America hotel owner who has
lived in Lobitos for more than 30 years, said that he purchased his land from the
municipality and went through the bureaucratic channels to get proper licenses for his
hotel. He added that most other hotel operators have neither licenses nor official land
rights and he is interested to see how it will play out in the future. He concluded this
interview by saying there is not a decent piece of unclaimed land now in Lobitos and he
is not sure how he will be able to compete with all the new businesses. He came to
Lobitos because it was quiet, peaceful, and the waves were uncrowded, but now he is
considering selling his hotel and moving elsewhere before the development gets even
more out of hand.

All of this development predominantly driven by entrepreneurs from outside of
Lobitos means more surfers, and more hotels means more surfers will stay in Lobitos
rather than surf and leave. This represents the ubiquitous catch 22 in that this means
more business opportunities in the economically depressed Lobitos as fishing returns
decline (Godden, 2013), but it also means more surfers, which threatens the area’s rugged/uncrowded/die-hard surfer appeal that attracts tourists in the first place.

Interviews with volunteers and other surf tourists expose that this contradiction runs even deeper. Almost every tourist, volunteer or otherwise, that I interviewed said in 2010 that they wanted Lobitos to remain uncrowded, but that the area could also use a few decent restaurants, and nice places to stay with internet. They said they were sick of eating ceviche and fish and rice every day and taking a forty minute bus ride to use the internet in Talara. By 2014, many were complaining that Lobitos was changing too fast, mainly due to the new beachfront lodging (with internet) and international cuisine options set up to cater to this demand. This suggests that many people want growth and do not want growth at the same time.

Figure 6.3  Graffiti Discouraging Foreign Businesses (translation = the north is for northerners, Lima is for people from Lima)
There is a growing faction of seasonal surf residents and other private surf entrepreneurs who have been operating in Lobitos for few years who claim to disparage this new wave of growth. These stakeholders typically blame other entrepreneurs from the north and from Lima for the undesirable growth in the area that makes it harder for them to enjoy surfing, but some also even suggest WAVES is partially to blame for providing lodging to many tourists and they view WAVES efforts to operate a surf shop as foreign run competition. For a short time some of these surfers teamed up with members of the fishing community to discouraged foreigners from starting businesses and staking out property. The graffiti shown in (Figure 6.3) can be found all over Lobitos and is visual evidence of this sentiment that I also gathered from interviews. The graffiti is mild compared to what some of these folks have done in the past. In interviews with WAVES employees and other locals, I was told that “the people” angry about foreign businesses inundating Lobitos at one time set properties on fire to discourage developers. When I tried to find out more about the instances of arson, I could not find very much information. Natalie, the former field director, did suggest that the movement was short lived as many of the protagonists were pacified by being either paid off, given jobs, or taking their own pieces of land and selling them. There are many who speak openly about disliking what the growth trend is doing to Lobitos, most however seem to fail to see the part they are playing in this transition by selling off land to these outside entrepreneurs and also housing many foreign tourists themselves.
While some of these stakeholders can be seen as hypocritical, they do represent a legitimate concern. The value of surf tourism is tied to the level of crowding. The days of surfing before the vans from Mancora arrived are surely now over in Lobitos and it is getting harder and harder to avoid crowds, even by walking to breaks a few kilometers outside of the town center. As noted, a surf-break’s carrying capacity can be considered a socio-psychological carrying capacity (Buckley, 2002a), which means, it cannot be quantified absolutely, but that it is relative – it is different for each surfer at each surf-break. In Lobitos, just like anywhere else, crowding means different things to different stakeholders. During my first field visit, on certain days when the surf would get really good, many surfers would flock to Lobitos from a 100 kilometer radius to surf. At times I counted more than 60 surfers in the water at the main point break in the area and a few times I witnessed nasty fights in the water, a clear sign that some people in the water were growing frustrated with the increasing volume of surfers in the water. What I observed was not Lobiteños that were aggressive with my colleague, it was Peruvians from outside of Lobitos (mostly Lima) who had been coming to the area for years, some of whom own their own businesses in the town and live in Lobitos only seasonally.

During my second field visit, many local surfers, volunteers, and WAVES employees complained about the large groups of Brazilians in town hogging all of the waves. Some locals said they were not even going to bother surfing until the Brazilians left and many of the business owners who had been operating in Lobitos for a few years were blaming the new entrepreneurs from out of town for bringing all of the crowds.
But not everyone one is pissed off by the growth of surf tourism in Lobitos. During informal interviews with Oliver, the local surf program director, and a few of WAVES’ local students, most said, when asked about Jim being beaten up in the water, that they were upset about the incident and each felt that more surfers coming to Lobitos was a good thing for them and their families. They said that they did not want to see people frightened off, especially volunteers. In an interview with one local WAVES student surfer, he said specifically that:

the fact that surfers come here from all over the world gives me a sense of pride in being from Lobitos. Because people come here from places as far away as Australia, Brazil, and the U.S, and they all say we have such amazing waves here, I know we have something special here. Even though I cannot yet afford to travel overseas, I get to experience so much of the world at home.

This quote suggests that some feel as if more surfers in Lobitos is a good thing. Others said that they did not mind sitting on the inside and catching smaller waves when it got crowded because they see more tourists as more opportunities to earn money, showcase their talents, and also learn about the world outside of Lobitos. This sentiment illustrates just how complex of an issue limiting surf tourism growth is. Many of the volunteer surf tourists and other surf tourists traveling to Lobitos complained quite often during informal interviews about the appearance of crowds in the water. This was shared by many Peruvians who have been traveling to Lobitos for years, some of which had opened business long ago in the area and see more tourists as threats to their surf experience and businesses, in the sense that more options and more competition can drive down prices. Many locals involved with the WAVES programs, however, want more tourists to help boost the area out of poverty. Also, many foreign and local restaurant owners, taxi
drivers, and hotel operators want more tourists to make their businesses more profitable. After thorough review of all the data collected in Lobitos, the most noteworthy element within the limiting growth category is the contradictory nature of almost every stakeholder group’s view on the subject (Figure 6.4).

Figure 6.4 Highlighting Contradictory Desires

Whose interests should take priority when considering implementing policies for limiting growth? While the answer to the question is not clear, what can be said at this point is that WAVES might be contributing to problems associated with un-checked growth in that it encourages local surf participation and local business ownership, and also because it brings many volunteer tourists to the area and hopes to bring more. The
growth WAVES facilitates however, may be under different terms in that they are trying to help historically excluded actors enter and profit from the DWST industry, rather than facilitating area growth for the sake of personal business profits. At any rate, evidence of the rapid physical growth in Lobitos and the role WAVES plays in facilitating new enterprises is why in one regard, WAVES does not represent a model with formal long term planning taking in to consideration limits to growth. In many ways, WAVES facilitates efforts that run counter to growth limiting considerations. WAVES also has not tried to establish a surf carrying capacity, nor have they tried to coordinate with the municipality or local business owners to put in place measures to limit tourism growth.

Rather than leaving the discussion with the notion that WAVES overlooks long-term coordinated planning with limits to growth and that outsiders are driving growth in the area despite WAVES’ efforts, there is another way to interpret WAVES’ role within this FASST category. While evidence suggests that Lobitos is beginning to experience rapid surf tourism growth as land is being fenced off, new hotels are springing up, and more and more surfers can be counted in the water, this is not the entire story. One could argue, that WAVES, through getting locals involved in the industry is facilitating a complex and long term surf-break management strategy in Lobitos. In an informal interview with the site manager from WAVES, she suggested that the organization does not see it as their place to come in and impose quota policies from the top down nor did she believe that was the best use of their influence and efforts. She said WAVES is more set up to empower community members to take part in the development process and mobilize communities to think about what they want their future to look like, which
requires working together to meet community defined needs. Perhaps the majority of stakeholders in Lobitos will not care in the end if visiting surfers ride uncrowded waves and pay a lot of money to the few people providing the surfers with services. The community may decide that many surfers paying a little bit of money all over town is better for the area as a whole. More research with different stakeholders in Lobitos is necessary to get a sense of overall community sentiments towards limiting growth.

WAVES is in a unique position to brokers such a conversation due to their long term presence in the area. Working with WAVES would be a key avenue to gain insights into how the community in Lobitos feels about surf tourism growth and/or potentially limiting it. Through the work of Gooden and Periche (2011) we know that many locals were concerned with becoming like Mancora before the development boom, but reactions to the phase of surf tourism growth I am now discussing needs more attention. Many comments suggested that Mancora style growth was becoming inevitable, despite the fact that most people also say directly that they want to avoid this. The purpose of this section was to highlight the nuance involved when considering limiting surf tourism growth and the cacophony of views on the topic.

To close, I must add that nothing I observed or gathered from any interviews indicates that a community driven growth limiting movement is on the horizon. While this movement is lacking, many new hotels are currently under construction and land is being claimed from the hillside all the way to the high tide mark. There is little or no planning involved with this growth, many of the entrepreneurs are coming from outside of Lobitos, and there are associated environmental impacts (especially with freshwater
use and waste disposal and treatment). For these reasons, it is quite conclusive that the WAVES model does not represent a proactive near-term growth limiting strategy.

6.5 Movements away from a Neoliberal Development Model

The neoliberal development model (also referred to as the consuming surf-breaks discourse and the neo-colonial development model) was outlined in detail in Chapter 3. In DWST, this development model is characterized by foreign entrepreneurs driving the tourism industry. Development is said to be neoliberal when profit maximization supersedes tourism planning and foreigners do not include locals in the benefits of surf tourism, while leaving locals to bear the brunt of the social and environmental costs the industry facilitates (Houghes-Dit-Ciles, 2009; Ponting et al., 2005; Ponting & O’Brien, 2013; Tantamjarik, 2004). The development history of surf tourism was said to follow this path in Indonesia (Ponting et al., 2005) and it was also suggested that abolishing the ability to privatize surf-break access in Fiji represents a shift in the direction of neoliberal development (Ponting & O’Brien, 2013). Ponting and Wearing (2009) argue that VST has the theoretical potential to inspire alternative development paths for DWST. They outline the mission and vision of a VST organization called Holidays with Purpose operating in Indonesia and suggest that the volunteer work and cross-cultural interaction the organization facilitates has the potential to change how surf tourism is represented, the type of tourism demanded, and local involvement in the industry. This thesis, however, is not tested with a case study of Holidays with Purpose in their work.
In many ways, the programs WAVES operates represent a concerted shift towards local inclusion in the surf tourism industry in Lobitos. WAVES provides financing and training to local entrepreneurs and this has enabled more than a few Lobiteños to start their own profitable businesses. There are restaurateurs, homestay operators, surf instructors, board repair specialists, a pharmacy owner, a photographer and many others who were operating successful businesses in 2014. This has not only boosted local earning potential and diversified the economy, but has contributed to creating a culture of local entrepreneurship. I talked to a few locals in the area that said they are thinking of starting their own businesses to join in this new trend and this represents a movement away from neoliberal disenfranchisement of the local population.

WAVES also employs people within a framework that offers training and skills to help them earn higher level positions, even if they decide that running their own enterprises may not be their best option. The organization employs local people, like Earl and other surf shop employees, not with the intention of keeping them in these positions for long periods of time, but with a conscious plan to help them transition in to more well paid positions either within WAVES or within other industries. WAVES also hires people like Isabell with the goal of training them to take on higher paid positions with more responsibilities. In this sense, WAVES does not simply employ locals in menial serves jobs, but provides access to career advancement. Both encouraging and supporting entrepreneurs and hiring locals in upwardly mobile career with access to training are strides towards moving the development path in a different trajectory.
Moving beyond discussing opportunities for local inclusion and advancement in the surf tourism industry, the discussion in this section gets a bit more difficult. This is because in some ways, VST propagates certain neoliberal ideologies. It is also hard to argue that WAVES facilitates a shift away from a neoliberal development model when evidence suggests that surf tourism in Lobitos is growing rather quickly and in an ad hoc manner, driven primarily by outside entrepreneurs and their requirements to become as profitable as possible at the expense of the local environment and local surf resources. To the former concern, Vrasti (2013:4) says “volunteer tourism helps young adults from the Global North assume a type of political subjectivity that, in its fidelity to neoliberal injunctions, embodies a new normative ideal.” An argument that it is precisely the neoliberal political ideology that puts voluntourists in a perceived position of power, meaning that being from an industrialized country equips one with the knowledge necessary to help people in the developing world out of poverty. It must be noted that the vast majority of cross-cultural interaction that I observed was mutually beneficial and positive, through participant observation and informal interviews during both field visits, however, it is important to note that I also gathered some evidence that a few volunteer tourists felt they knew what was best for the people in Lobitos. One volunteer said that the locals do not quite have “our” work ethic. Her rationale was because oftentimes when customers came to the surf shop and wanted surf lessons or pictures taken of them, local employees were unavailable or not willing to provide the service at the time demanded. One WAVES employee was also critical of local shop employees for not showing up for work during their scheduled shifts, causing her to have to work at the
register or close the shop because of their absence. Some volunteers were also critical of Harry for buying a motorcycle with his photography profits. Many suggested that he should have used his earning to buy equipment or pay to further his education, rather than buy a motorbike, suggesting they knew what was best for Harry to buy. For these reasons, some volunteers seemed to feel as if they were in a position of superiority and said that they wanted to help teach the locals better work ethic and punctuality. This is evidence that at least some voluntourists believe part of the problem in Lobitos is that the locals need to be taught to act more like they do, which reinforces Vrasti’s (2013) assertion that voluntourists seek to spread certain ideas about how to function ‘properly’ in a capitalist society to locals who are often seen as different or lazy. While this was more of the exception than the norm from the qualitative data collected in this study, it is still important to mention because this discussion helps to show how pervasive neoliberal ideas can be transferred even if not done so intentionally.

Furthermore, in Lobitos, there was evidence as well that volunteer where also enmeshed and operating within the parameters of certain neoliberal ideologies. Many voluntourists said that they wanted to travel and surf or learn to surf, but felt that working with WAVES would help their employment prospects or college application credentials. In an informal interview, one volunteer said, “I definitely wanted to travel and get some waves on my summer break, but I figured working with WAVES would allow me to do some good and to not be perceived as wasting time.” The societal value placed on voluntourists being able to navigate in the developing world re-emphasizes the marketability of being able to help open new markets for capital infusion and investment.
Because voluntourists are coming to work with WAVES in part to improve their resume credentials and in so doing teach the locals to operate businesses in a way similar to how it is conducted in developed countries (suggesting locals should drop everything they are doing when there is a chance for money to be made, be constantly available for chances to make money, not spend earnings frivolously, always show up to work on time, etc), volunteers are attempting to spread certain neoliberal ideologies to a small fishing community in the developing world. In short, volunteer tourism is, in some respects, a driver of neoliberal economic expansion and ideologies rather than something counter.

The high costs of participating and keeping WAVES operable shows that in some ways VST is just like any other tourism industry. Tourists pay a good deal of money to visit a remote coastal community, stay for a short time period and leave. They do this because they feel like they are getting a valuable service (opportunity to travel, surf, interact with and help people in remote coastal communities). Because it is expensive, organizations like WAVES must spend money marketing their organizations and paying staff to coordinate these efforts (often from industrialized countries), which can make VST almost indistinguishable from more conventional tourism providers.

Furthermore, when looking at the surf tourism industry in Lobitos overall, evidence also suggests that people from outside of Lobitos are the dominant players in the industry and may be leading development on an unsustainable path. Lodging options and restaurants doubled between 2010 and 2014 and many of the entrepreneurs procuring land and starting these business are coming in from other areas of Peru and other countries. Many more properties are being constructed and this phase of development is
straining the municipality’s ability to provide freshwater, treat sewage, and dispose of waste.

In some respects, as noted in the first part of this section, VST in Lobitos facilitates an alternative to the neoliberal development model that has occurred in other coastal towns. Mostly because a good portion WAVES’ revenue gets rolled back into social programs and WAVES has made many efforts to be inclusive of locals in the development process. This chapter has shown many examples of how WAVES has facilitated meaningful cross-cultural interaction, developed the sport of surfing in Lobitos, and contributed to alleviating poverty and also how the initiatives leading to these outcomes have benefited many community members in Lobitos greatly. It was shown here that many people have received and will continue to receive the benefits of social programs that might have otherwise gone unfunded, and many local residents are building the capacity to start their own enterprises and enter careers in the tourism industry with prospects for advancement. Stories like the one offered from Harry’s experience are happening for dozens of Lobiteños. The flipside is that the creation of these opportunities result from neoliberal economic forces that place a high societal value on service work and the ability of service workers to help locals run profitable enterprises (teaching people to operate in a neoliberal market). Also in this vein, for WAVES to deliver on its mission, it must offer a high dollar service to middle and high income young adults from industrialized countries, which in some ways is very similar to conventional tourism industries. Furthermore, it does not seem at present that locals being introduced to the surf tourism industry by WAVES are driving the style and pace
of development in Lobitos. While WAVES facilitates inclusion, outsiders are still driving the development process.

In closing, it does not appear that WAVES, operating at the local level in cooperation with local stakeholders in Lobitos, has the capacity to challenge the global neoliberal development model which has been shown throughout this work to drive surf tourism development in the developing world. As Figure 6.4 shows, there are just too many contradictory desires among stakeholders in Lobitos and as Figure 6.2 shows, infrastructural development is progressing without hindrance, suggesting that the drivers of growth are superseding any latent community desires for slowing the pace of change or limiting growth in Lobitos. For these reasons, when looking at the local level in Lobitos, while some of WAVES’ projects mitigate some of the negative impacts historically associated with the neoliberal development path in surf tourism, such as local exclusion and exploitation, as a whole however, the stakeholders in the community do not have the capacity or clear unified desire to challenge the traditional neoliberal growth path in Lobitos. In fact, many seem to want growth and growth is a part of WAVES goal of improving the economic circumstances of the community in Lobitos. Most of the Lobiteños that I interacted with suggested that they wanted jobs in the tourism industry and WAVES works to give locals access to the growing surf tourism industry. The shells of new construction dotting the horizon in Lobitos are evidence that growth is continuing in Lobitos in an ad-hoc and unplanned manner as is typically of the neoliberal development path.
Perhaps the best way to address an interrogation of WAVES’ ability to foster a movement away from a neoliberal development model is to re-introduce a discussion of scale. Governance at the global level led to the creation of WAVES which works to positively impact the local community in Lobitos. This means that there are movements at the global level, which impact local communities in the developing world. Also to breakdown the discussion of scale even farther, WAVES is one group of stakeholders in a larger community, it is not linked with the municipality and is self-proclaimed apolitical. WAVES cannot unilaterally change the institutional framework that governs surf tourism in Lobitos, so asking whether WAVES’ efforts lead to a concerted shift away from the dominant neoliberal development paradigm may not be a fair or productive. What this discussion reveals, however, is that there is a subsystem dimension to scale and WAVES’ role in Lobitos. WAVES has helped to create a subsystem that creates possibilities for citizens that did not exist and would not have been provided by the existing governance structure in Lobitos. WAVES, therefore, creates subsystem channels of governance within the broader institutional framework in Lobitos, which does reduce and eliminate some of the historic problems associated with the neoliberal development path in DWST. Understanding this layer of analysis is important because while WAVES does not have the capacity to completely eschew neoliberal development in Lobitos, it has created opportunities that might have not been present otherwise for Lobiteños. Furthermore, WAVES’ work may be inspiring more activity and social pressures at the global level, which could influence the global drivers of neoliberal surf tourism development. In short, understanding scale is critical to any discussion of
sustainable DWST and the analysis under this FASST category is illustrative of the importance of the scalar dimension of analysis in this field.
Chapter 7

CONCLUSION: STUDY FINDINGS AND CONTRIBUTIONS TO THE FIELD

7.1 Summary of the Three Part Theoretical Framework Used in this Study

The goal of this study was to present a multi-stakeholder and multi-scale framework for understanding the impacts of technology on DWST and to implement this framework in analyzing a real world case study. This was done to discover what could be learned from applying this new framework to the study of an area where surf tourism in the only tourism industry present in an understudied region. The reason for this approach was to build off of the foundational knowledge in DWST studies and to propose a framework that adds nuance and breadth to the traditional discussion of common-pool resources in surf tourism, builds in a more significant discussion of how technology contributes to surf tourism evolution, and opens up space for better understanding the way in which surf resource users autonomously organize to try and build sustainable institutional frameworks in remote coastal communities.

The foundational works in developing world surf tourism studies situate the challenges associated with surf tourism in a fairly strict common pool resources (CPR) theoretical construct borrowed from the economics discipline (Buckley 2002; Hughes-
Dit-Ciles, 2009; O’Brien & Ponting, 2013; Ponting et al., 2005; Ponting & O’Brien, 2013; Tantamjarik, 2004). In this context there are users (surfers and foreign surf entrepreneurs) and CPR units (waves), and because there is no ownership of the wave resources, the incentive structure will be one where more and more surfers will infiltrate the commons until the waves become overused. When this happens, the host community is left to deal with the deleterious impacts of surfers flooding the common-pool wave resources (social and environmental) and entrepreneurs eventually lose market share and profits, which creates an incentive for entrepreneurs to move on to other areas in order to stay out in front of surf tourism expansion. Thus the process of wave commons exploitation continually spreads to new coastal communities and impacts more and more places with a development model that has repeatedly failed local communities and their environments (Ponting et al., 2005). Most researchers using this CPR framework argue that wave privatization (public or private) is the main, if not only mechanism for facilitating sustainable wave resource use (Buckley 2002; Hughes-Dit-Ciles, 2009; Ponting & O’Brien, 2013; Ponting, 2014).

The framework presented herein builds upon the foundational work on common-pool resources (CPRs) and the initial attempts to apply CPR theory to surf tourism. The first step in the process was to discuss the social-ecological systems (SES) framework, increasingly being offered in the political economy field as an alternative approach to discussing CPR challenges. This framework brings to the fore the idea that there are resources systems, resource units (the products of those resource systems), resource users, and also governance mechanisms which condition the ways that users interact with
CPRs. Many studies dedicated to SES suggest that under certain conditions, users will develop governance approaches to facilitate sustainable resource use out of collective interests, rather than from top-down imposition (Agarwal, 2001, 2003; Anderies et al. 2004; Blanco, 2011; Ostrom, 2007, 2009, 2010).

In utilizing the SES framework to situate DWST, three governance models were isolated that are growing in frequency in the developing world. These are voluntary private sector initiatives, local collective action, and volunteer surf tourism (VST). These efforts are not imposed by governments, but are taken up by resource users voluntarily to attempt to facilitate sustainable resource use. In reviewing these governance approaches, it became clear that user variables found to predict the presence of voluntary sustainability initiatives (Blanco, 2011) were significantly influenced by a growing online surrounding gaze enveloping surf culture. Information online exposes instances of wave resource exploitation and the attempts users are undertaking to reduce or eliminate the negative impacts. This spreads information about surf tourism problems, normative sustainability ideals, and also inspires entrepreneurial leadership to replicate and establish new governance approaches.

Combining these ideas, the framework proposed in this work is one where global coevolving technology, environment, and society (TES) factors situate local SESs in remote coastal communities with growing surf tourism industries (see Figure 7.1). This framework demonstrates that surf tourism evolves, and a great deal of its evolution can be attributed to the way technological connectivity facilitates user to user communication and self-organized governance approaches. The question then became, what does self-
organized governance look like on the ground in surf tourism and how effective are these approaches at facilitating sustainable outcomes? And furthermore, if we apply this framework to a case study where a self-organized governance model is present, what knowledge can be gained?

Figure 7.1 Summary of 3 Part Theoretical Framework Used in this Study
The next step was, therefore, to introduce a case study of one approach to surf tourism governance being attempted in the developing world to reduce or eliminate the negative impacts historically associated with the phenomenon. I chose volunteer surf tourism (VST) because as Figure 4.2 in this study indicates, VST is spreading rapidly, especially in Latin America, but can also now be found on almost every continent. I decided to look at WAVES in Lobitos because the tourism industry is solely dependent upon surf tourism. A concurrent reason for choosing Lobitos as the area to conduct research was to present a case study that not only illustrates user self-organization, but also does so in the context of land based surf tourism resources in Latin America. Most of the researchers utilizing this CPR framework in their studies on developing world surf tourism did so in island and offshore coral reef based case studies in Indonesia, Papua New Guinea, and the Fiji. Land based surf tourism in Latin America, however, is growing rapidly, but there has been very few dedicated surf tourism studies in Latin America, and none in Peru (Martin & Assenov, 2012). This study was thus explanatory for three key reasons: it utilized a new framework which highlights the importance of technology to inspiring user organized governance; it is the first case study of any self-organized governance model; and is also the first case study of surf tourism in Peru.

7.2 Study Findings and Contributions to the Field

After situating the case study within the combined TES and SES theoretical constructs (Parts one and two in Figure 7.1), the FASST normative theoretical framework
(part three in Figure 7.1) was adopted to analyze and reflect on the outcomes delivered by the VST governance approach in Lobitos. The direct findings from applying the FASST framework for situating a discussion of the sustainability of WAVES’ efforts in Lobitos led to four main conclusions:

1. Entrepreneurs and tourists from within other areas of Peru and other developing countries are significant drivers of tourism growth in Lobitos. This highlights the importance of gaining a better understanding of surf tourism within and between developing world surf destinations. This finding also challenges the foundational knowledge in this field, which suggests foreign tourists from industrialized countries drive the exploitation process in remote coastal communities in the periphery.

2. WAVES is an international advocacy group that was formed, at least in part, because of a growing awareness (online surrounding gaze) of problems associated with surf tourism causing a desire to do things differently. The organization facilitates mutually beneficial cross-cultural interaction in many different ways and through many different activities; continues to teach many locals how to surf and provide them with equipment; and helps to directly alleviate conditions of poverty through direct employment and also indirectly through measures taken to foster surfing aptitude, English competency, and cross-cultural interaction.

3. The WAVES model does not facilitate coordinated planning in Lobitos that takes into consideration limits to growth. Despite the presence of WAVES in Lobitos, growth (in tourist visitation and tourism infrastructure) is driven by entrepreneurs from outside of Lobitos, and is proceeding in an unplanned and rapid manner. WAVES was found to facilitate a governance substructure leading to many positive local benefits in Lobitos, but it does not have the capacity to alter the entire institutional framework in Lobitos away from moving towards the dominant neoliberal development path. WAVES can perhaps influence changes at the more broad global level in that direction. This brings up scale as an important dimension in studying sustainable surf tourism.

4. ICTs allow surfers and surf entrepreneurs to respond rapidly to environmental changes. Before severe El Niño events caused landslides, which formed the quality surf-breaks in Lobitos, there was no surf tourism in the area. Technological connectivity spread information about the quality waves in Lobitos once they were formed and led to the rapid increase in surf tourism development.
In the next subsections, the implications of each of these findings will be discussed in more detail to demonstrate what was gained from applying the theoretical framework created in this study to a case study of VST in Lobitos. The findings from this study offer important contributions to the growing surf tourism field and also suggests directions for future studies to consider.

7.2.1 The Significance of Surf Tourists and Entrepreneurs from within Peru and other Developing Countries

A critical finding from this study is the significance of surf tourists and entrepreneurs from within Peru and other developing countries to the process of driving tourism growth in Lobitos. As the data collected and compiled in Appendix C indicates, roughly 90 percent of the lodging industry is run by Peruvians from outside of Lobitos. This work began on the assumption that travelers and entrepreneurs from high-income OECD countries are most responsible for driving change in remote coastal communities in the developing world, as this is implied in almost all of the literature in this field. In Lobitos, this is surely an important element, I observed many travelers and some entrepreneurs coming into Lobitos from the US, Australia, Israel, and the UK, but this was found to comprise only a small part of the story. For Lobiteños, tourists and entrepreneurs from Lima and other areas of Peru were viewed equally as outsiders and blamed even more vehemently by many locals for driving undesirable and rapid change in the area. Graffiti remains in Lobitos (Figure 6.3) as symbolic representation of the rift between Lobiteños and Peruvians from other parts of the country, which once even manifested itself in isolated instances of arson, as people from Lobitos tried to discourage
foreign business intrusion by setting properties on fire. Regardless of this animosity and the different way that it is expressed in Lobitos, the empirical evidence strongly suggests that tourism growth in Lobitos is driven overwhelmingly by Peruvians entrepreneurs from outside of the area and this finding challenges one of the foundational assumptions in this field.

In addition to the Peruvian industry dominance from cities outside of Lobitos, entrepreneurs and tourist from Argentina and Brazil were also both found in Lobitos and also contributed to growth in Lobitos. The foreigners that own the Surf Camp were especially criticized by other entrepreneurs and locals for charging such low rates for camping that surfers stay for long periods of time, and this was said to contribute significantly to crowding in the surf. This shows that many entrepreneurs and locals see a correlation between charging low rates and crowding in the surf, but that there is not an institutional framework for addressing this popular concern. Furthermore, during my second field visit especially, Brazilian surf tourists represented nearly half of the tourist in the area during the observation period. I showed in the analysis that many of these Brazilians were staying in lodging options recently opened in Lobitos by people coming in from Lima and other developing countries. Many locals expressed that these tourists were disrespectful in the water and some even stopped surfing, saying that they were waiting for them to leave. This suggests that DWST may not be best understood as a flow of capital and humans from the Global North to the Global South, but that the scope of research must be broadened to incorporate travel within and between developing countries. More research geared towards understanding the flow of tourism within and
between developing world surf tourism destinations is needed because, as of now, very little is known about these entrepreneurs and tourists.

The main implication from this finding is that much of the language in the developing world surf tourism discourse is inaccurate and misleading when applied to this case. There is no doubt that there are certain contexts in surf tourism where foreign entrepreneurs from industrialized countries drive the process of growth in many remote coastal communities. What this study shows, however, is that in at least some instances, people from developing countries are just as capable and able to drive visitation and infrastructural growth in their own country and to do so in a way that still has many negative social and environmental consequences. While there still may be core/periphery issues within a country to consider when examining surf tourism development, it is not always accurate to assume that developers from industrialized countries drive this process and exploit resources in developing countries.

What this study shows is that if we want to understand DWST better we need a better understanding of the flow of people involved in the process. To put this in the language of the TES portion of the framework utilized in this work, the overarching societal element that situates the DWST phenomenon is now changing in that it is not only wealthy white people from industrialized countries that surf and fan out to colonize surfing space in the developing world. Surfing is becoming a global activity and this changes the parameters the drive the way DWST spreads and manifests in remote coastal communities. Wealthy entrepreneurs from industrialized countries are now just one of many players driving surf tourism growth and in many cases (as this study suggests) they
are not even the most significant contributors to tourism growth. More effort must be put into learning more about the growing populations of surfers from developing countries because this segment of surf culture will continue to grow and impact many coastal regions in the developing world.

This finding also highlights the need to accentuate the impact of surfers and entrepreneurs from developing countries in other DWST studies. While their impact can be implied from other studies, the importance of a growing surf population within developing countries typically goes unmentioned and is almost always underappreciated. Adding in this dimension is an important addition to our understanding of DWST. To list just a few examples, for one, In Ponting and O’Brien’s (2013) study on surf-break liberalization in Fiji, it was found that restricting local surfers from riding privatized waves was a major driving force behind the disbanding of private wave ownership rights for surf resorts. Local Fijian surfers were actively involved in protesting and lobbying against being restricted from surfing waves in their country and this changed the framework in which surf tourism now transpires in the entire country because now the law states that no surf-break can be privatized in Fiji. Hughes-Dit-Ciles (2009) suggested that local surfers in Nias, Indonesia were devaluing the surfing amenity by being aggressive and discouraging foreign surfers. I discussed in this work also the local collective action being implemented by local surfers in Salina Cruz to limit foreign media exposure and force foreign surfers to hire local surf guides and photographers. The point of this discussion being that as the surf population becomes more international, the focus should needs to shift away from just thinking about how surfers from industrialized
countries impact the developing world when they travel, the discussion must become more nuanced than that for knowledge to accumulate in the field.

7.2.2 WAVES’ Ability to Foster Sustainable Surf Tourism in Lobitos

One goal in this study was to create a framework to understand governance in relation to localities in the developing world. The WAVES case study showed how a growing online surrounding gaze is enveloping surf tourism and inspiring leadership to reduce or eliminate the negative impacts being attributed to DWST in localities. In other words, there are scales of governance to be considered – the WAVES case shows how people living outside of Lobitos can be inspired to create a global advocacy group to positively impact the on-the-ground conditions in a remote coastal community in the developing world. The WAVES case helps us to better understand the connection between global and local level governance.

WAVES’ founder, was aware of the historic challenges becoming exposed within this surrounding gaze and when combined with his embodied experiences in Lobitos (and the surrounding areas) he decided he wanted to create an advocacy group dedicated to charting a new development course in Lobitos. To begin WAVES, Aabo relied heavily on social media to build support and raise funds, and continues to use online communication technologies to solicit volunteer participation and operate the organization. In short, internet communication technologies played an integral role in the formation and ongoing operation of WAVES. The new technological infrastructure that situates DWST, therefore makes this governance model possible. Without the user
connectivity enabled by online communication channels, WAVES may have never been created nor be able to accomplish the many positive impacts the organization has been able to facilitate in Lobitos. The reality that every volunteer I spoke with found out about WAVES either from friends of friends posting on Facebook or through online research is evidence of how the changing technological landscape changes the qualitative nature of surf travel.

Data collected indicates that VST in Lobitos facilitates many benefits when analyzed under three of Ponting and O’Brien’s interrelated FASST criterion (fostering cross-cultural interaction, developing surfing at the local level, and alleviating poverty). While these three criteria were separated into different analytical categories for the purpose of organizing an analysis of sustainable surf tourism in Lobitos, a crucial finding in this work supports Ponting and O’Brien’s (2013) assertion of just how interconnected these three criteria are. For example when volunteers give locals surf lessons, this activity develops the sport of surfing at the local level, promotes cross-cultural exchange, and also leads to entrepreneurial empowerment and poverty alleviation. This is just one example, but WAVES’ ability to foster sustainable surf tourism cannot be understood without discussing how it addresses each of these normative goals and how each of these criteria are linked together and critical to meeting WAVES’ overarching mission.

To discuss each criteria in turn, first off, this model helps further cross-cultural interaction, which is beneficial for both tourists and the local community in Lobitos. The cross-cultural interaction WAVES facilitates helps volunteer tourists gain a holistic sense of the realities in Lobitos. This can then contribute to an online surrounding gaze as
volunteers post details while in country and after they return. Evidence of the type of material that can be found online was offered in Figure 6.1 with the excerpt from one WAVES volunteer’s blog, and particularly the part where she said:

The community loves WAVES volunteers and are extremely appreciative of their work. I went to wish goodbye to the family living opposite to the WAVES house (which also run a beer shop) and the old lady running the shop couldn’t stop hugging me and blessing me. One of those moment I will cherish forever too……..If anyone reading this post is still wondering if they should go to Lobitos to volunteer, please I assure you, you won’t regret it, leave fear behind and go to Lobitos with an open heart and eager for adventure!

This quote, which can be read online by other perspective volunteers, glorifies the experience of volunteering and interacting with the community and also seeks to relieve any anxieties a potential volunteer may have when deciding whether or not to commit to volunteering with WAVES. Not only do volunteer experiences get interpreted online and form part of the growing online surrounding gaze, but volunteers can also more directly indoctrinate new understandings from their experiences into their personal knowledge of the world outside of the U.S and development work, and this new found understanding can influence their future travel decisions if nothing else. This cross-cultural interaction also helps the local community to become empowered to use surf tourism as a mechanism for poverty alleviation. Locals starting profitable homestays, photography businesses, restaurants, surf lessons, and obtaining capital to install cement floors are all evidence of this. WAVES’ role in teaching locals to surf has also helped Lobiteños to have prowess in the surf and control much of the space out in the breakers which helps to challenge the colonial development paradigm where foreigners (including entrepreneurs and tourists from Lima and nearby Mancora) expropriate control of both the land tourism
resources, as well as, the waves themselves. While land tourism may be becoming
dominated by outsiders, dark skinned members of the fishing community in Lobitos are
treated with respect in the water and interact as equals with light skinned Peruvians from
Lima and western tourists in a way that would have been unheard of even only a few
years ago. Surf lesson have also been equally inclusive of women and this has helped to
facilitate gender empowerment in Lobitos. In short, WAVES facilitates mutually
beneficial cross-cultural interaction in many different ways and through many different
activities; continues to teach many locals how to surf and provide them with equipment;
and helps to directly alleviate conditions of poverty through direct employment and also
indirectly through measures taken to foster surfing aptitude, English competency, and
cross-cultural interaction. Technological connectivity makes the governance approach
WAVES facilitates possible and the many benefits realized in Lobitos cannot be
understood without serious consideration of the way advances in ICTs situate the
discussion of local SESs and open up space for users to self-organize in attempts to
foment sustainable outcomes in DWST.

7.2.3 Challenging the Neoliberal Development Model and Scale as an Important
Dimension of Analysis

When examining WAVES’ efforts as part of a larger institutional framework for
governing resources sustainably in Lobitos, there are also shortcomings to be considered.
The next finding is that while WAVES has helped some to create viable local enterprises,
helps builds local capacity for economic improvement, and employs many locals directly
through opening up subsystems of governance in Lobitos, the development path is still
being dominated by well-capitalized individuals from outside of the community. This corroborates Godden’s (2013) finding that tourism growth is being driven by outsiders in Lobitos. Furthermore, as the GIS map in Figure 6.2 shows, this development is happening rapidly and sprawl is taking over Nuevo Lobitos (the newly forming tourist district). This study finds that lodging options more than doubled in the four year horizon of this study and much more development is in the works. This infrastructural growth is proceeding in an ad-hoc and unplanned manner, much like what has been critiqued within the neo-colonial (neoliberal) development path in DWST. Many of the new hotels are pumping their sewage directly onto the land towards the water and not installing measures to dispose of waste adequately. Many new business are also using water in a way that far outstrips local water supplies. Not only is this development rapid and unplanned, but there are also distributional issues to consider. Neuvo Lobitos is being sectioned off and experiencing high levels of construction from the hillside to the high tide mark and an influx of foreign owned businesses, while the Barrio Primavera, where most of the local fishing community lives, remains isolated from many of the benefits associated with surf tourism growth. Not only is the Barrio isolated from many of the benefits, but a case can be made that population density is growing in that area and services (waste disposal, electricity, and access to fresh water) are not keeping pace with the population growth.

For these reasons, a major finding herein is that volunteer tourism has facilitated many benefits through creating subsystems of governance that would not have otherwise existed, but it does not limit tourism growth and in many cases accelerates growth. The
WAVES model, therefore, cannot be said to represent a movement away from the neoliberal development model on the ground in Lobitos. The tourism infrastructure is growing rapidly and more and more surfers are coming to surf in Lobitos each year. While locals have not been completely excluded from this growth, at least in part because of the work WAVES has been doing, overall area growth in tourism volume and coastal construction has proceeded unchecked and is driven by outside actors. This can be attributed to the lack of attention paid to Lobitos by the regional and national government and the unwillingness or inadequacy of the local municipality to manage tourism development. Because formal government regulation of tourism is non-existent in Lobitos, entrepreneurs claim land, or purchase claimed land from locals and continue to build hotels and restaurants without pollutions mitigation efforts and without any planning. Within this context, WAVES can be seen as one actor imbedded in a complex local institutional framework. An actor which has in many respects remained apolitical on the issue of limiting growth and every interview conducted suggests the organization will continue to remain so.

The analysis in the neoliberal development FASST category thus brings up the critical dimension of scale to surf tourism studies. On one hand there is a global neoliberal development model that conditions how surf tourism manifests in remote coastal communities with high quality wave resources, and on the other hand there are the local communities, and stakeholders within those communities, operating at the local level and adapting to local changes. The analysis herein indicates that WAVES does not have the capacity to challenge neoliberal processes on the ground, but does open up
subsystems of governance that reduce and eliminate some of the negative impacts of this development model. Perhaps at the local level, it can thus be argued that challenging neoliberalism is an unrealistic goal in this case. While this work has shown that some of the negative impacts of a neoliberal development model can be mitigated by governance measures enacted by an NGO, is it reasonable to suggest that an NGO acting at the local level has the capacity to eschew such a pervasive development model in a remote coastal town where many people live in poverty and above everything want higher incomes and jobs to improve their living conditions? And furthermore, when there is no formal government structure operating to manage tourism development, what can be expected other than a development model dominated by market forces?

Discussing scale is critical because even if at the local level of analysis the dominant development model cannot be completely avoided given the lack of formal government involvement and the inability of NGOs to change the entire institutional structure, perhaps the work being done by WAVES is active at inspiring change on a larger scale. By spreading awareness about challenges associated with surf tourism and the things they are doing to overcome those challenges in Lobitos, WAVES and its volunteers are contributing to an online surrounding gaze that may inspire action at a global level. It is important to note, however, that just as WAVES cannot challenge a global neoliberal development paradigm on its own at the local level in Lobitos, it cannot by itself enact global policy or standards for surf tourism, this would entail better organization and collaboration.
When discussing the global scale, a critical question becomes, to what extent are NGO’s organized to create national and global standards for surf tourism? This type of global advocacy is not without precedent. NGO’s have successfully pushed for international agreements in forestry, coffee production and trade, and organic agriculture. And perhaps most relevantly, other tourism industries, like scuba diving for example, have instituted specific ecotourism guidelines relevant for scuba travel. A civil society organization called Project AWARE, developed the guidelines for sustainable dive tourism, which include measures like leaving the reefs healthier than how you found them and patronizing dive centers that prioritize local employment (Mach, 2009). These measures have been adopted by dive certification bodies, such as PADI (the world’s largest), and these sustainable dive tourism principles are now taught to every diver that becomes certified. I do not include this discussion to suggest that the project AWARE tenets for sustainable dive tourism are perfect, or that they alone can lead to sustainable worldwide dive tourism, the point is to show that an informed civil society movement can also have global implications in surf culture as well, and change how surf tourism is conducted in many local contexts.

There is evidence that action is beginning to happen at the global level in DWST. There is now a Center for Surf Research (CSR), which is made up of academics, graduate, and undergraduate students dedicated specifically to studying the impacts of surf tourism, as well as, developing and certifying surf tourism industry best practices. This center attempts to raise awareness about surf tourism challenges and is actively trying to institute global industry standards. The Sustainable Tourism Operators Kit for
Evaluations (STOKE) is the center’s latest effort to roll out best practices for surf tourism industry operators, and the center actively consults and helps hotel and tour operators achieve this surf specific certification. There is also an international NGO called Save the Waves International, which has established the World Surfing Reserves (WSR) framework in 2009. The WSR framework is a global model for setting aside surf areas as protected area. WSR’s push to increase habitat protection, enhance natural resource values, and retain existing social, cultural, economic and environmental values while providing a strategic and institutional framework to address current and future user and management needs and issues in surf tourism (Martin & Assenov, 2012). Furthermore there is also a Surf Resource Network which is another global advocacy groups with the goal of raising awareness about organizations (including WAVES) operating around the world trying to foster sustainable outcomes in localities around the world.

It is beyond the scope here to go into great detail on any of these organizations, but it is critical to offer them as evidence of global advocacy movements in surf tourism. An important finding in this study is that neoliberal development operates at two levels. It operates at a global level (one scalar dimension), which in many ways conditions the way development occurs at the local level (the other scalar dimension)\textsuperscript{30}. This is why scale should be an important consideration in DWST studies. It is critical to consider what is happening on the ground in local contexts and how that is connected to global paradigms that condition the way in which development manifests in local contexts.

\textsuperscript{30} This work also reveals that there are subsystems of governance at the local level, but this discussion is left out in this section.
When considering changes and the impacts of social movements, it is also important to understand that the impacts of organizations like WAVES are different when considered on local and global scales. The framework used in this study was created to discuss both scalar dimensions in a way that allows for an appreciation of how they are interconnected. The global scale was represented with the TES framework, then the SES framework was used to explain variable interactions at the local level, and finally the FASST framework was utilized to address the impact of the global TES interconnections on the SES variable interactions at a specific locality. This is certainly not the only way to do this, but the idea was to create a framework which accounts for scale and demonstrates how considering each scalar dimension highlights different, but interconnected challenges. The findings of this study reveal how critical scale is to answering important questions concerning the sustainability of surf tourism, especially when discussing movements towards or away from a neoliberal development paradigm. The DWST field can benefit through paying closer attention to importance of scale and building scale into models in a more robust way.

7.2.4 Environmental Changes, Climate Change, and Technology in DWST

Prior to 2000, there was no tourism infrastructure in Lobitos. There was only a small fishing community and transient oil workers present. Meteorological events (extreme rain events associated with El Niño weather patterns) facilitated the environmental changes which created high quality surf in Lobitos, where it once did not exist. This finding exposes how critical environmental changes are to surf tourism flows.
Environmental change, specifically in this case, heavy rains which caused mudslides forming a large sand beach with sandbars changed the topography in the area in a way that was favorable to surfing. The framework used in this work highlights the idea that these environmental changes do not occur in a vacuum, and technological factors accelerate surfers’ responses to these changes. Surfers, utilizing internet connectivity, and the surf media, exposed the wave quality to a growing audience and surfers began to arrive in Lobitos, as did entrepreneurs from outside of Lobitos. And this happened rather quickly. Data indicates that the first lodging option in Lobitos was established in 2000, two years after the last destructive rain storms that formed the surf-breaks in Lobitos. In 2014 there are now roughly 40 lodging options and this growth is visible with GIS imagery (Figure 6.2). The combination of environmental changes and technological connectivity therefore facilitated surf tourism inspired infrastructural development and visitation growth, which altered the environmental and social milieu in Lobitos in many ways discussed throughout the FASST analysis.

This finding brings to the fore the implications climate change may have on the future of DWST. Climate change will cause storm patterns to change in location, frequency, and intensity and also cause sea-levels to rise. While we cannot know a priori how this will specifically impact the world surf map, it is safe to assume that the places where surf tourism happens will change as the climate does. This means that places which were once of no interest to surf tourists might become so as the world’s coasts are impacted by changing weather patterns. How will the global surf community and the localities impacted by these environmental changes respond? This study shows that if a
new wave is formed somewhere, surfers will know about this and respond to it quickly. As the Lobitos case study shows, a place can go from isolated desert fishing community to full on surf tourism destination in less than a decade. Nowadays there are more people looking out with advanced real-time weather forecasts and satellite imagery searching for new surfing waves than ever before. When they find the surf they are looking for, films will be made and posted on Facebook, there will be chatter on social media, and there will be blogs posts on sites like wannasurf.com. The surf secret is dead and surf development happens fast. The same will be true if surfing waves get destroyed by a damaging storm or a rising sea off into the future. When a wave loses its quality due to environmental change (or human built infrastructural changes) it can fall out of fashion rapidly and this can greatly impact the local surf tourism economy.

Again, we cannot know how the surf map will change, but it is important to have a framework for discussing and understanding these changes as they unfold. The TES framework gives a way to discuss how these interrelated TES factors impact the way surf tourism evolves over time and the SES framework helps us to understand how variables at the local level interact and respond to changes. Finding just how critical environmental change was to the creation of the surf tourism industry studied in this work in Lobitos has major implications for the DWST field because it exposes how fast communities can become impacted by dominant global development paradigms once surfing conditions are improved or created by powerful storms. This should be an important consideration in future studies.
It is critical to also mention that social change also coevolves with environmental and technological change. An important contribution to DWST studies from this work is to note the impact of technological change on surf culture. In previous studies, the cultural impetus for driving surf tourism demand is taken as static. Surfers are swayed by media campaigns to want to surf uncrowded waves in the developing world. Market forces will not keep waves uncrowded so they must be managed to continually deliver on this static surfer desire. This work shows that surrounding gaze, and the technological connectivity that it results from, can drive qualitative changes in the demands associated with surf tourism. The Lobitos case study supported the claim that the online surrounding gaze was critical to establishing WAVES. Through exposing past exploitation and socio-environmental issues at surf-breaks in the developing world, the surrounding gaze formed part of a call to action to the founders of WAVES. Spreading information about WAVES and soliciting new volunteers through the online infrastructure has facilitated many community benefits in Lobitos. Also, the reality that people demand volunteer surf tourism experience is evidence that the demands are changing and these volunteers are sharing their experiences online to encourage others to donate to VST organizations and volunteer themselves. This has helped to inspire the creation of many other VST enterprises in other locations (See Table 4.2 for some examples) as well as efforts of local collective action (i.e. institutionalized localism in Salina Cruz, Mexico) and voluntary private sector initiatives (i.e. STOKE Certification). This online surrounding gaze concept can seem abstract or intangible, but this
overarching governance mechanism enveloping DWST is built from individuals having embodied experiences surfing in the developing world and sharing them online. This changes the qualitative demands of surf tourism and inspires new governance approaches.

This study shows that the surrounding gaze is integral for users to self-organize to develop approaches for more sustainable resource use. A major implication of this finding is that individuals can contribute to supporting or changing the shared normative ideals emanating from the online surrounding gaze. At its base level, this involves surfers doing their part to make sure their voices are heard in every avenue possible. If a surfer finds a hotel option that helps alleviate poverty in an area, they should share this information. This involves helping to support locally run business that may not have a strong internet profile otherwise. If a surfer finds a hotel not treating their local employees well or egregiously polluting, this should be exposed. The watchdog function only works if individuals act. These things can be as simple as posting things on community webpages, posting on travel forums like trip advisor, or commenting on articles in the surf media. If content is fetishized, say so. If a place is in danger of resource overuse, tell people. This work showed that the decades of keeping surf secrets was part of a governance system that benefited regimes of power (made up of foreign entrepreneurs, wealthy surfers, and the surf media) and failed to make local community environmental and social issues known and addressed. This “surf secrets” approach is becoming more difficult in the internet era, but surfers must still act to ensure surf tourism moves in another direction. The easiest thing for anyone who cares about sustainable DWST can do is continue to spread information about resource exploitation,
as well as, efforts being undertaken to facilitate alternatives. This dialogue is a part of the growing online surrounding gaze that facilitates change. The “surf spring” is dependent upon it.

7.3 Avenues for Future Research

This study was one of the first to look at surf tourism in developing world localities as social-ecological systems nested within a wider TES theoretical framework. In so doing, it highlighted the importance of scale when considering how global level factors influence the way development occurs in coastal localities in developing countries. This study was specifically concerned with how a global online surrounding gaze, enabled by advances in internet connectivity, help to inspire autonomous governance approaches at surf-breaks in the developing world. The work of WAVES in Lobitos, Peru was isolated as an example of self-organized governance and the organizations interaction with the community in Lobitos was analyzed using the FASST framework to develop insights which supported the explanatory power of the three part multi-scale and multi-stakeholder framework offered. This effort led to specific findings and the implications of those findings on the wider body of knowledge were discussed in the last section.

This final section is included to suggest future avenues of research that can further contribute to our understanding of how coevolving social, technological, and environmental changes at the global level impact real-world localities in the developing
world. This list is not meant to be exhaustive, but each of the avenues offered would help to improve our understanding of the complex issues discussed in this study and, in so doing, also improve the general body of knowledge focused on DWST.

7.3.1 Volunteer Surf Tourism

This dissertation presented an exploratory case study of VST in Lobitos. This means that this study is just the first step in trying to better understand surf tourism governance and the impacts of surf tourism in developing world coastal communities with some form of governance infrastructure. The focus was on VST because it seemed to be the response that was spreading the fastest in reaction to a surrounding gaze shedding light on the negative impacts associated with surf tourism in developing countries. Much could be gained from future studies in Lobitos and more long-term fieldwork. Work could focus more specifically on different stakeholder perceptions of crowding, the economic impacts of surf tourism in Lobitos, profiling visiting surfers or entrepreneurs, survey reactions to surf tourism from the fishing community, assessing environmental change in conjunction with surf tourism growth, and looking at social media representations of Lobitos. Furthermore, WAVES foreign employee turnover could be examined, as well as, challenges associated with turning over field management operations to local staff. There are also plenty of topics and specific issues that I have not mentioned. In short, the DWST field could benefit from many more studies dedicated to VST in Lobitos.
In this study of VST in Lobitos, I found that teaching surfing and English and facilitating cross-cultural interaction led to some degree of poverty alleviation, as well as gender and socio-cultural empowerment for many Lobiteños. These claims should begin a conversation about the benefits associated with VST, but also invite individual validation or refutation. Studies dedicated individually to poverty alleviation, gender, or socio-cultural empowerment would lend critical insights as to how these outcomes occur, what changes these outcomes facilitate in the community, and the proportional impacts on a community scale. This study contributes instances of these things occurring in Lobitos and this is a critical contribution to DWST studies, but diving farther into these suggested benefits would yield a more comprehensive understanding of these processes and their impacts in the community.

More studies on VST initiatives in other places could also help different models and approaches to VST be compared in terms of their effectiveness to deliver sustainable outcomes. I briefly discussed the reality that not all VST organizations take the same approach to supporting community development. By looking more closely on the ground at what other VST organizations do in the communities where they operate and assessing the effectiveness of their efforts, we could begin to compare different approaches to implementing VST and begin building knowledge concerning what works to address which issues. There will also be continental and regional nuances that will be revealed through studying VST in different contexts. Table 4.2 lists VST organizations operating in Africa, Southeast Asia, Central and South America and there are mostly likely other VST organizations that were missed or are in the process of being created. While this
study could only realistically be dedicated to one VST enterprise at one location, future studies from other areas would help not only improve general knowledge about VST specifically, but also lend critical incites related to the connectivity between the global level influences and local governance approaches, which would enhance our knowledge concerning many of the issues brought up in this study.

7.3.2 Different Models of Autonomous Resource Governance.

In this work I also mentioned and briefly discussed autonomous self-organization models other than VST, specifically, voluntary private sector initiatives and local collective action. Case studies exploring the effectiveness of each of these approaches would lend important incites to developing a body of knowledge on DWST governance. Fieldwork in Salina Cruz, Mexico could shed light on how the collective action efforts organized by the SCCA do or do not foster aspects of sustainable surf tourism outlined in the FASST framework. The FASST framework could also be used to examine the communitywide impacts of a surf resort adopting and implementing the STOKE certification developed at the Center for Surf Research at San Diego State. More case studies of different local level self-organized governance models can lead to better classifications of the different approaches currently available, as well as, improve the field of study by allowing for comparative studies of different approaches. In this work, an attempt was made to organize the approaches that were found when researching DWST governance models, but the classifications offered should be improved upon in future studies and parameters for classifying each approach be made clearer.
Future studies are also needed to gain a better understanding of global actions of surf advocacy. What are global initiatives comprised of, how do they work, and what are the local impacts of these global initiatives. Earlier in this chapter, it was noted that there have been international agreements in forestry, where parties involved agree to uphold certain standards for the extraction and trade of certain wood products. The sustainable scuba tourism criteria offered by Project AWARE, which was adopted by scuba certification bodies and taught to every person seeking a dive certification, is also evidence of a precedent for global level advocacy impacting localities around the world dealing with a specific issue. Surf tourism is moving in that direction, but individual advocacy groups such as WAVES have not yet bound together with other organizations to press for global standards, which could potentially have policy implications at the global, regional, and national level.

7.3.3 *Analysis of a World Surfing Reserve (WSR)*

One global level advocacy initiative impacting surfing localities worthy of dedicated study is the World Surfing Reserve framework. This is a framework for setting aside surf-breaks around the world as WSR’s. Creating a WSR calls for the establishment of a “Stewardship Planning Process” and this entails the local community and a non-profit called Save the Waves International to begin a planning process that includes: “the creation of a local stewardship council (LSC), the drafting of the Local Stewardship Plan, community outreach and education.” While the WSR approach is a global level initiative, it was built with context specific flexibility in mind. It does not
dictate from the top down how to manage a surf resource nor a one-size-fits all approach to limiting growth. WSRs only require that stakeholders in an area come together to establish an implementable management plan for the reserve that works for the context in their particular community.

In reality, however, the WSR framework is very new. The organization was founded in 2009 and the first site was dedicated in 2010. At present there are only five dedicated reserves and four are in industrialized countries (Malibu & Santa Cruz, USA; Ericeira, Portugal; Manly Beach, Australia) and only one in a developing country (Huanchaco, Peru). Research dedicated to any one of these reserves would lend valuable insights to surf tourism studies. For DWST specifically, however, research in Huanchaco is essential to uncover what is being done on the ground and then assessing the impacts. Designation is critical, but the designation is only as good as the outcomes being involved in this program facilitate, and to understand this, research is needed. Research should be dedicated to uncovering the ability of the WSR to create an institutional framework that responds to the five FASST criteria. Who is the LSC? Are all local stakeholders equally represented? Does the designation work to incorporate the desires and interests of people not involved with surf tourism? Will the WSR framework limit growth? Does the WSR help to alleviate poverty? All of these questions need answers to help not only improve the WSR framework, but also to build knowledge about what components sustainable institutional frameworks entail and to understand the impacts of global level advocacy groups on DWST.
Furthermore, three of the four WSRs that have been approved, but are awaiting designation are in low-income countries (Bahia Todos Santos, Mexico; and Uluwatu and Padang Padang, Indonesia). This means that the WSR council received an application from stakeholders in these areas and deemed that the areas are worthy of the designation. Worthy because they meet the following criteria: quality and constant surf; existing surf culture and history; local community support; local surf tourism benefits realized; and need for local environmental protection. Before being dedicated, communities in these areas must demonstrate that they have created a LSC, and the LSC has formulated an implementable management plan. Research following this entire process could also lend crucial insights to DWST.

7.3.4 Building and Applying Empirical Environmental Indicators

When discussing unplanned tourism growth in Lobitos, many potential environmental issues were brought up by people interviewed in Lobitos. Access to freshwater was the major concern brought up. Surf tourism entrepreneurs said they did not have enough to satisfy their clients’ needs and locals complained often that they barely had any freshwater at all to accomplish daily routines. Many volunteers were concerned that sewage was dumped untreated and that solid waste was not disposed of properly. Others suggested the influx of cars driving on the beach are hurting the crab population. Much of the evidence about environmental harm collected in this study was important, but anecdotal and subjective. Findings from the Lobitos study thus reveal a need for incorporating better ways to analyze the environmental impacts of surf tourism.
in remote coastal communities. While studies in the general tourism literature isolate environmental issues and possible ways of monitoring environmental change brought on by tourism, studies dedicated to addressing the ways in which surf tourism is similar, or different in terms of environmental challenges relative to other forms of tourism, are critical.

This study, therefore, revealed the need for empirical indicators of environmental sustainability and justice (concerning distributional issues associated with local natural resources) to be incorporated in DWST case studies. Environmental concerns are not directly addressed in the FASST framework outlined by Ponting and O’Brien (2013), but as the category directed towards tourism growth indicates in this work, much of the infrastructural growth in Lobitos has serious environmental impacts and bring to the fore questions of environmental justice. Freshwater is in short supply and evidence suggests foreign tourism entrepreneurs are taking the lion’s share of this resource by installing large water tanks and trucking in water in a way that the local community is unable to do in most cases. Many locals squatting in old colonial and military dwellings do not even have access to the municipal water supply. Sewage is being dumped directly into the ocean and trash constantly blows around in the area. It is for these reasons that this study reveals a need for better indicators of environmental sustainability and justice to be developed and applied in DWST studies. These indicators might include quantifiable ways to measure distributional access to freshwater and the quality of that water, ways to measure solid and human waste disposal, and the environmental impacts of infrastructural and population growth. This contribution to the field is necessary and
could contribute robust discussion and comparable objective indicators for analyzing the environmental sustainability of surf tourism in local contexts. This discussion would also help us to begin to understand the proportional effects of surf tourism pollution vs. other forms of pollution in local contexts. At this point, the best approach for creating and utilizing objective environmental indicators is not clear, but work dedicated to creating this measurable indicators would help to improve knowledge in the DWST field.

7.3.5 More Case Studies and Engaging More Communities More Effectively

Also, as Table 1.3 indicates, surf tourism has only been studied in a handful of places, despite the fact that the activity occurs in hundreds of communities in hundreds of countries (Martin & Assenov, 2012). Furthermore, attempts to quantify global surf tourism in terms of active participants and financial impacts currently involves a great deal more guesswork than empiricism unfortunately. Because DWST is happening in hundreds of communities in many countries, how can we know how many surfers there are and what the impacts of surf tourism are in all of these places? And as noted, we know even less about how many surfers there are in the developing world, their travel preferences and behaviors, nor their role as surf tourism entrepreneurs. While better data would be nice, what is really needed, and is more feasible to collect, are more representative samples from more places in the world. What the case study in Lobitos has shown is that the drivers of change and the governance options available to communities are different in the context of land based surf tourism in a desert industrial town than they are in the contexts of the formative case studies in the field conducted on
island and offshore coral reef based tourism in Indonesia and the South Pacific. Studying surf tourism in more places can help researchers to identify regional patterns and perhaps gain a better sense of how different the challenges are in the context of different communities in different regions of different countries. Surf tourism in Africa poses different challenges than surf tourism development in Latin America and the governance responses being taken up in these areas are also most likely different in terms of who the main players are and local institutional frameworks created. Simply put, more work is needed in more places for the field to even come close to keeping up with the scale, geographic dispersion and pace of surf tourism inspired development. Surf tourism will continue to grow in the coming decades and more communities will be impacted by the phenomena. Further research in the field will be crucial to understanding how the challenges are changing overtime and also things that are being done to meet normative standards of sustainability. More case studies are needed in more places for the DWST field to grow and our collective understanding of the global phenomena to improve.

It is not just more quantity in case studies that is needed, the bar on quality should be set higher if it is a commonly agreed normative ideal that surf tourism should benefit the people that live where it happens and if local sustainability and equity are to remain important concerns. To this end, what the field is also in dire need of is better ways of engaging local communities (especially people outside of the tourism industry) in the process of both planning for tourism development and assessing the desirability of surf tourism impacts. In fairness, some have tried to do this, but the reality is, and as I discovered first hand in the field, it is much easier to talk to people involved in the
industry and tourists, and this causes the information these stakeholders provide to dominate research findings. In the march to develop indicators and ways of assessing what sustainable surf tourism is, the voices of people who are perhaps most impacted, but outside of the industry, need to be more effectively included. This will help governance mechanisms to include local preferences and work to indoctrinate behaviors in accordance with local perceptions of sustainability and equity. No community will be homogenous in terms of desires for change and reactions to surf tourism impacts, but finding ways to convey the views of currently underrepresented stakeholders will help researches in this field to more adequately and holistically represent desires for, and perceptions of change driven by surf tourism. Right now, the normative codes being developed by surfers from developed countries are becoming more well-known, but more effort is needed to allow knowledge of local perceptions and desires to become more adequately included. There are methods for doing this in anthropology and sociology, but they need to be implemented in long-term DWST case studies. If the ‘Surf Spring’ is to happen in a way that improves the conditions of the local people impacted by surf tourism, this will be an integral aspect.
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Porter-Bolland, L., Ruiz-Mallén, I., Camacho-Benavides, C., & McCandless, S. R.


APPENDIX A

SURF-BREAKS IN DEVELOPING COUNTRIES

(The data presented here was from Wanasurf.com and used to create Figure 1.2)

<table>
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<tr>
<th>Country</th>
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<th>Region (based on location)</th>
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<td></td>
</tr>
<tr>
<td>Saba</td>
<td>Caribbean</td>
<td></td>
</tr>
<tr>
<td>St. Vincent &amp; the Grenadines</td>
<td>Caribbean</td>
<td></td>
</tr>
<tr>
<td>Tokelau</td>
<td>Asia/Pacific</td>
<td></td>
</tr>
<tr>
<td>Tuamotu</td>
<td>Asia/Pacific</td>
<td></td>
</tr>
<tr>
<td>Wallis &amp; Futuna</td>
<td>Asia/Pacific</td>
<td></td>
</tr>
<tr>
<td>Yemen</td>
<td>Middle East</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX B
### UNSTRUCTURED INTERVIEW TABLE

Informant Table (Filing in the Role signifies that they were interviewed that year)

<table>
<thead>
<tr>
<th>Name (Origin)</th>
<th>Community Role 2010</th>
<th>Community Role 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dave Aabo* (USA)</td>
<td>WAVES Executive Director</td>
<td>WAVES Executive Director</td>
</tr>
<tr>
<td>2. Natalie (Australia)</td>
<td>Field Director</td>
<td>Independent Researcher</td>
</tr>
<tr>
<td>3. Trevor (UK)</td>
<td>Long-Term Surf Tourist</td>
<td>WAVES Former Volunteer Program Coordinator</td>
</tr>
<tr>
<td>4. Bill* (USA)</td>
<td>Constructing a Hotel</td>
<td>Hotel Owner (15 pers Occupancy)</td>
</tr>
<tr>
<td>5. Raymond (UK)</td>
<td>Long-Term Surf Tourist</td>
<td></td>
</tr>
<tr>
<td>6. Chistoph Kraul* (Lima)</td>
<td>Owner El Hueco Surf Villas (25 pers Occupancy)</td>
<td></td>
</tr>
<tr>
<td>7. Sancho (Costa Rica)</td>
<td>Volunteer Tourist (WAVES)</td>
<td></td>
</tr>
<tr>
<td>8. Jay (USA)</td>
<td>Volunteer Tourist (WAVES)</td>
<td></td>
</tr>
<tr>
<td>9. Eric (USA)</td>
<td></td>
<td>Volunteer tourist (WAVES)</td>
</tr>
<tr>
<td>10. Jim (USA)</td>
<td>Volunteer Tourist (WAVES)</td>
<td></td>
</tr>
<tr>
<td>11. Doug (Lobitos)</td>
<td>WAVES Student</td>
<td>Security Guard, Mini-Van Driver, Aspiring Hotel Operator</td>
</tr>
<tr>
<td>12. Sarah (USA)</td>
<td></td>
<td>WAVES Entrepreneurial Program Coordinator</td>
</tr>
<tr>
<td>13. Harry (Lobitos)</td>
<td>WAVES Student</td>
<td>Photography Entrepreneur</td>
</tr>
<tr>
<td>14. Oliver (Lobitos)</td>
<td>WAVES Surf Program Director</td>
<td></td>
</tr>
<tr>
<td>15. Sonia (Lobitos)</td>
<td>WAVES Environmental Conservation Teacher</td>
<td>WAVES Environmental Conservation Teacher</td>
</tr>
<tr>
<td>16. Nick (Lobitos)</td>
<td>Restaurateur</td>
<td></td>
</tr>
<tr>
<td>17. Isabell (Lobitos)</td>
<td>WAVES Administrative Assistant</td>
<td>WAVES Associate director of Administration</td>
</tr>
<tr>
<td></td>
<td>Name (Country)</td>
<td>Role</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>18.</td>
<td>Earl (Lobitos)</td>
<td>WAVES House Manager</td>
</tr>
<tr>
<td>19.</td>
<td>Zach (USA)</td>
<td>Volunteer Tourist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WAVES)</td>
</tr>
<tr>
<td>20.</td>
<td>Jess (Netherlands)</td>
<td>WAVES long-term Intern</td>
</tr>
<tr>
<td>21.</td>
<td>Florencia (Argentina)</td>
<td>Hotel Operator</td>
</tr>
<tr>
<td>22.</td>
<td>Nick (Lobitos)</td>
<td>Restaurateur</td>
</tr>
<tr>
<td>23.</td>
<td>Samantha (USA)</td>
<td>Restaurateur</td>
</tr>
<tr>
<td>24.</td>
<td>Clair (USA)</td>
<td>WAVES Volunteer Landlord</td>
</tr>
<tr>
<td>25.</td>
<td>Ale (Argentina)</td>
<td>Volunteer Tourist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WAVES)</td>
</tr>
<tr>
<td>26.</td>
<td>Rick (Brazil)</td>
<td>Tourist, Surf Photographer</td>
</tr>
<tr>
<td>27.</td>
<td>Neto (Brazil)</td>
<td>Independent Surf-Tourist</td>
</tr>
<tr>
<td>28.</td>
<td>Angela (Lobitos)</td>
<td>Municipality Worker</td>
</tr>
<tr>
<td>29.</td>
<td>Marco (Lobitos)</td>
<td>WAVES Student Homestay operator</td>
</tr>
<tr>
<td>30.</td>
<td>Gus (Lobitos)</td>
<td>Fisherman</td>
</tr>
<tr>
<td>31.</td>
<td>Sam (Lobitos)</td>
<td>Fisherman</td>
</tr>
<tr>
<td>32.</td>
<td>Lisa</td>
<td>WAVES Volunteer coordinator</td>
</tr>
<tr>
<td>33.</td>
<td>Fido</td>
<td>WAVES Environmental Health Program Assistant</td>
</tr>
</tbody>
</table>

*Real Name with Permission*
APPENDIX C
LOBITOS LODGING OPTIONS

(Peru indicates from outside of Lobitos)

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Section of Town</th>
<th>Owner Origin</th>
<th>Year Observed Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobitos eco lodge</td>
<td>Nuevo Lobitos</td>
<td>Brazil</td>
<td>2014</td>
</tr>
<tr>
<td>WAVES House</td>
<td>Nuevo Lobitos</td>
<td>Lobitos</td>
<td>2010</td>
</tr>
<tr>
<td>Don XX</td>
<td>Nuevo Lobitos</td>
<td>Lobitos</td>
<td>2014</td>
</tr>
<tr>
<td>Don Vincente's (homestay)</td>
<td>Barrio Primavera</td>
<td>Lobitos</td>
<td>2014</td>
</tr>
<tr>
<td>Hotel Lobitos</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Altabra</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Alberque</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Sampapala</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Surf Camp</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Darwin's</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Surfari</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Casa de Nacho</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Surf Natural</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Kike (rooms in house)</td>
<td>Colonial/military</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>Julio (rooms in house)</td>
<td>Colonial/military</td>
<td>Peru</td>
<td>2010</td>
</tr>
<tr>
<td>La Casona</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Picinas Surf House</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>El Hueco Villas</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>El Buraco Surf Lodge</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Lobitos Lodge</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>3 Cabanas</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>Picinas Surf Hostel</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>El Cuartel de Lobitos</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>La Casa de Jesus</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>La casa de Jose Antonio</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Lapa Lapa Lobitos Bungalows</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Piscinas Surf Point - Pousada</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Lobitos Surf Paradise Hotel</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Lobitos Surf house</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>----------------------------</td>
<td>---------------------</td>
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<tr>
<td>Wayra Hotel Lobitos</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>Augustino's house</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
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<td>Zion Lobitos</td>
<td>Colonial/Military</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>Hotel Relajate</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
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<tr>
<td>Hotel Nevago</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Lobitos Surf Home</td>
<td>Nuevo Lobitos</td>
<td>Peru</td>
<td>2014</td>
</tr>
<tr>
<td>Los Miramarres</td>
<td>Nuevo Lobitos</td>
<td>USA</td>
<td>2014</td>
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</tbody>
</table>