Vieques, Puerto Rico: From Devastation to Conservation, and Back Again

by

Javier Arbona

B.Arch. (1999) Cornell University

Submitted to the Department of Architecture in Partial Fulfillment for the Requirements for the Degree of Master of Science in Architecture Studies

at the

Massachusetts Institute of Technology

June 2004

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ABSTRACT

The donning of camouflage gear by military forces is uniformly understood to be an attempt to dissolve into a background matrix in order to deceive an enemy in combat, or in a combat simulation. This thesis examines the landscape of Vieques, Puerto Rico, to disprove such notion and move towards proving the opposite: that the military assembled the background matrix according to its own set of interests. Through different communication channels and agents, the military arranges the retrospective gaze into the landscape, recasting the past in the service of its future stratagems. The military communicates to visitors that they gaze at original, primeval nature, when in fact it is a successional vegetation misrepresented as primordial. This scenography proves nearly unquestionable when it is adopted by corporate tourism marketing at the end of the 20th century, but does not appeal to the leisure audience only. It also seduces all those that opposed the military, perpetuating an idea of Vieques without people in the process.

Thesis Supervisor: Anne Whiston Spirn Title: Professor of Landscape Architecture and Planning To my grandparents, Lorenzo (in loving memory) and Dorothy.

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I owe my gratitude to many people who greatly enriched this work over the course of about a year. Thanks to their creativity, wisdom, and intellectual curiosity, I was hopefully able to produce a stimulating document.

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I am enormously grateful to my advisor, Prof. Anne Whiston Spirn. You were a mentor more than an advisor and for that, I thank you. Also, I appreciate the commentary of all the students in Prof. Spirn's Urban Nature seminar during the Fall 2003 semester, but especially Mitchell Joachim and Annis Whitlow, avid listeners both.

My two readers, Prof. William L. Porter and Prof. Mark M. Jarzombek: thank you for all your ideas, direction and expertise.

This work owes a debt of gratitude to several people who might not realize how large and important their seemingly insignificant, off-the-cuff comments were. I am thinking of Prof. John Ochsendorf and Anna A. Neimark. Without them I never would have hit upon *The Rings of Saturn* and *Stalker*.

There is a big group of people on Vieques and Puerto Rico who were generous with their time to help me find answers to questions. These are Jorge L. Colón, research scientist; Carlos Domínguez-Cristóbal, historian with the Center for Tropical Forestry, National Forest Service; Alina Luciano, photographer for Claridad newspaper; Felipe Morales-Morán, Assistant Special Commissioner at the Office of the Special Commissioner for Vieques and Culebra; Mariem Pérez-Riera, filmmaker; Roberto Rabin-Siegal, from the Institute of Culture and the Museo Fuerte Conde Mirasol, Vieques; José Rivera-Santana, urban planner; and last but not least, Juan Carlos Román at the Archivo General de Puerto Rico.

Others experts outside of Puerto Rico who made themselves accessible via email are Theodore Henry, Amee Houghton, Katherine McCaffrey and Lenny Siegel.

I have too many friends to name here who have provided encouraging words and advice when needed. Among those, nonetheless, I want to especially thank Yanni Loukissas, Cecilia Enjuto-Rangel, and Pedro García Caro, who were patient listeners and commentators of draft papers; and also, María Blanco for reading suggestions and proof-reading.

In the fall of 2003, I had the privilege of doing research on Vieques for final class projects at the Harvard Design School under the supervision of Prof. Richard Forman and Prof. Peter del Tedici. I want to thank both for the guidance, as well as my case study partner, Olga Anguiera.

At MIT, I applaud the efforts of Ian Finlayson for being determined to start a student discussion group under the umbrella of the Sustainable Urban Development Society. Thank you for having this forum where so many problems and ideas are actively debated, and where I was able to bring Vieques to the table.

As for institutional support, I am very grateful to the MIT School of Architecture and Planning and to Dean Bill Mitchell for the funds from the Horowitz Travel Award to do research. I am grateful to the University of Southern California Art History Department and the Graduate Student Symposium Committee, headed by Kathleen Chapman, for giving me the opportunity to present at their school. This forced me to sharpen my ideas early in the process. Finally, I never would have embarked on a research project about Vieques if it had not been for Jennifer Allora and Guillermo Calzadilla, artists and faculty at the School of Fine Arts, Puerto Rico, who invited me to join their research trip to the island. They were also very helpful with initial background materials and hopefully I can now return the favor by informing their work, as well as the work of others.

{ Biographical Note }

I studied at Cornell University between 1994 and 1999, graduating with a Bachelor of Architecture. I received the Eidlitz Travel Award from the Architecture Department at that institution in 2000, along with my research partner Christopher King. In our collaboration, we developed a competition entry for *Pamphlet Architecture* called "The prison-industrial complex in California: a field report," based on our visits to California prisons. This is still an ongoing research interest of mine. In 2003, I received the Horowitz Travel Award from MIT's School of Architecture and Planning.

During my time at MIT, I had the honor of being selected by the University of Southern California's Art History Graduate Student Symposium to read "The Vieques 'Paradox,' or Just How Luxurious Pollution Can Be." My thesis topic was also selected for presentation at the Ninth Conference of the International Association for the Study of Traditional Environments, 2004, sponsored by the American University, Sharjah (UAE) and the University of California, Berkeley.

In 2003, I had the pleasure of collaborating with Mitchell Joachim and Lara Greden, both PhD students in the Department of Architecture, MIT. Our project, *The FabTreeHab: Local Biota and Fauna Graft Living Structure*, won an award from the South Eastern Center for Contemporary Art with Habitat for Humanity and was a semi-finalist at the 2003 Bienal Miami Beach. It was published in the MIT Department of Architecture journal *Thresholds* and was exhibited at the Alliance for Global Sustainability Annual Meeting at Chalmers University of Technology, Göteborg, Sweden in 2004. We also submitted, along with Hayes Raffle, Victor Gane and Hao Tian, an entry for the World Trade Center Memorial Competition.

I served as Student Representative and Secretary to the Department of Architecture Student Council (2002-2003). I was a founding member of the Sustainable Urban Development Society (2004) and part of the steering committee of the first lecture series by this group.

I have served on the editorial team of an independent architecture web magazine, *Archinect.com* since 2001.

In 2004-2005, I will be a Visiting Lecturer at Polytechnic University of Puerto Rico School of Architecture.

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Vieques, Puerto Rico:

From Devastation to

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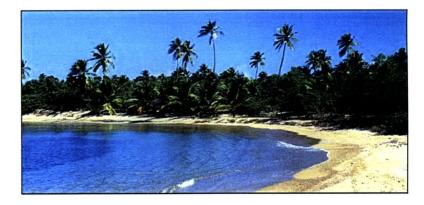
At all events, in retrospect I became preoccupied not only with the unaccustomed sense of freedom but also with the paralyzing horror that had come over me at various times when confronted with the traces of destruction, reaching far back into the past, that were evident in that remote place.

W. G. Sebald, The Rings of Saturn

Introduction



Vieques, Puerto Rico.



Green Beach, A Vieques beach as represented by a New York Times photographer.

Flying over Vieques



A Vieques Beach as represented by a Los Angeles Times photographer.

Vieques is a small island with a lot of ocean and a lot of sky. From above, it is long and narrow, a bit like a machete with the slender Eastern tip being the machete's handle. The length means that the ocean is never too far to be seen, touched, heard, smelled, or tasted, if not all of these. It's easy to feel overwhelmed by the broad sheet of water and the austere line of the horizon that frequently fill your vision, or to feel swayed by the fast-moving clouds that surf the trade winds, rapidly changing shape. Some days, you can see how those same gusts insistently chop up the ocean and you also feel the salt cling to your skin, as if you are already in the water before you even got to the beach.

Hills run through the island's center, but nothing gets in the way of seeing millions of stars at night, especially on moonless nights. The many crisp, near-white beaches glow under the brilliant sun and, in turn, the hot sands warm the clear water that shimmers in the brightness.

This warmth is vital for various sea turtles that visit the beaches to lay their eggs under cover of darkness.

Vieques' elongated shape means that the Caribbean Sea touches much of its surface area. The island is located off the East coast of Puerto Rico in the upper limits of the Caribbean, very near to where that body of water meets up with the Atlantic Ocean. The North coast has a fine saw-tooth grain with several dozen tiny half-moon bays. The strong currents that migrate from the Atlantic Ocean seem to maintain such an even grain. In contrast, the Southern part of the island has calm waters and large, irregular peninsulas that jut into the Caribbean. Several cays seem to have flaked-off from the Southland into the sea and resurfaced as floating emeralds in the blue. One of those cays is home to a community of the endangered brown pelican. The peninsular outgrowths reach out to the cays and protect a handful of beautiful, calm sea-water lagoons and beaches. One of these lagoons lights up at night with millions of bioluminescent blue microorganisms. Like stars that shoot to and fro in the currents, these organisms thrive because of the calmness and the thicket of mangrove wetlands all around.

Along some of the North beaches, palm-trees lean into the ocean that in turn digs the sand out underneath them. The sand gradually slopes away from the ocean and begins to make a slightly more stable habitat for other coastal plants, like the sea-grape. The snarled mess of mangroves, with their thin and sinuous barks and dark waxy leaves, dominate other coastal areas. The mangrove ecosystem is an intriguing zone of uncertainty straddling water and land. These complex forests bring together an astounding variety of animals: some fly and others swim, some can either swim or crawl, while some sit in the shade between the knotted branches. Manatees often come close to these areas to feed off the sea-grass beds.

Very narrow streams, some of which seasonally dry up, vein through Vieques linking the coasts to the hill tops. Despite the small trickle of water, some of the tallest trees on the island grow along these paths. These streams eventually lead up to hilltops where *úcar* and fan-leaf palm stands grow. On the rest of the island, a subtropical dry forest displays succulent and thorny plants, such as mesquite and acacia. It covers most of the low inland elevations, which is in fact the majority of the island, and it resembles the dry forest of South Puerto Rico. At times giant cactuses appear that must be sixty years old. Where the forest ends and the pasture begins, wild horses run free.

Bahía de la Chiva on the Vieques Southern coast, one of those many crystalline-water beaches, can be easily reached by road—a former military road—that has been open to the public during limited daytime hours ever since it was cleared of live ordnance in 2003.¹ Once upon a time, this beach also had a teeming mangrove lining its waters. The mangroves were cleared to make way for a coconut grove during the Spanish colonization of the island, circa 1840, but those coconut palms are not there anymore either. In 1941, the Americans, who had taken the island from Spain in 1898, destroyed the coconut palms themselves for "fields of fire" in World War II drills, as a page from the *Vieques Times* showed.² They filled the clearing with antipersonnel mines and booby traps for amphibious attack practices. This was part of the inauguration of over sixty years of military uses of Vieques. After the Navy departed, the Department of the Interior's Fish and Wildlife Service has been managing the former military installation as a wildlife refuge.³

USFWS. "Vieques National Wildlife Refuge Welcomes Public to Eastern End of the Island." April 30, 2003.

Vieques Times. Volume 150, September 2003. p. 4 citing American General W.W. Harris.

See Appendix III: Vieques National Wildlife Refuge map.

Vol. 150 September 2003

THE VIEQUES TIMES



Antipers on nel mines and booby traps were buried in the tangled mass Why are there no palm trees on Blue Beach?

The question was put to us by a visiting travel writer. We said the once teeming coconut glades had

been razed to create "fields of fire" during war games. The reaction - incredulity. Wasn't the area listed as a conservation zone?

Sure, and now a wildlife refuge, but the reality is really the reality.

These photos (and captions) are from the Vieques chapter of a book by American General W.W. Harris.

Viequenses in Washington

A delegation of Viequenses, representing the Committee for the Rescue and Development of Vieques, the Vieques Women's Alliance, and others, began a week of lobbying and outreach yesterday, as part of the Congressional Hispanic Caucus Institute (CHCI) annual issues conference at the new convention center in Washington, DC. The Viequenses presented a video titled "Vieques: Paradise Lost?" at the kick-off luncheon in front of several Members of Congress, US Surgeon General Richard Carmon a and many others. They also spoke at a conference panel on Health issues, chaired by ongresswom an Hilda Solis and set up an exhibition booth where they showed the video charts, handed out information material, and explained the current situation in Vieques, focusing on the need for dean-up decontamination, and having the Navy compensate Viequenses for the health crisis it created (All the members of the delegation have cancer or other serious illnesses). In the first day of their visit, the Vieques delegation met with Congressman Ciro Rodriguez, Chairman of the Congressional Hispanic Caucus, Congressman Solomon Örtiz, ranking Hispanic in the House Armed Services Committee, Congresswoman Nydia Velazquez, and Congresswoman Hilda Solis, among others)





Page 4

alm we es felled before being interlaced and wired ungeber with barbed wire

¿Porque no hay palmeras en La Chiva?

Este fue el interrogante de un escritor visitante. Le informamos que los abundantes cocales habían sido sacrificados, arrasados, talados para crear "campos de fuego" durante los juegos de guerra.

Su reacción fue de incredulidad. ¿No es este denominado un área de conservación?

Seguro, y es además un refugio de vida silvestre, pero la realidad es, realmente, la realidad.

Estas fotos (y calces) son del capítulo sobre Vieques del libro por el General americano W.W. Harris.

Viequenses en Washington

Una delegación de Viequenses representando al Comité Pro Rescate y Desarrollo de Vieques, la Alianza de Mujeres y otros llegó a Washington, D.C. para cabildear por mejores servicios de salud en Vieques, la descontaminación, la devolución y desarrollo de los terrenos utilizados por la Marina de Guerra por más de seis decadas. Los Viequenses presentaron un video llamado "¿Vieques, Paraiso Perdido?" y montaron una exhibición sobre el caso actual de Vieques donde entregaron información, cartas, y otros materiales como parte de la reunión de esta se mana del Caucus del Congreso Hispano donde también estaba el Cirujano General de los Estados Unidos Richard Carmona. El enfoque principal fue la necesidad de limpiar y descontaminar, además de presionar a la Marina que compense a los Viequenses por la crisis de salud que creó... todos los miembros de la delegación son víctimas de cancer u otras graves enferme dades. Entre los viequenses estaba Fela García (CPRDV), Carmen Valencia (AM), Angel Medina, Myriam Matos Pérez, Zavda Tomes (Comité de Transición) y Rose Navedo Diaz. Los Viequenses compartieron con los Congresistas Ciro Rodriguez, Solomón Ortiz, Nydia Velazquez, y Hilda Solis entre otros.



Vieques Times page showing the destroyed palm trees at "Blue Beach,"

as Bahia de la Chiva was named by the Navy.

On April 19, 1999, an F-18 fighter jet dropped a payload of two 500-pound bombs several miles off-target that killed David Sanes-Rodríguez, a civilian security guard from Vieques. The event marked the start of the end for the military on Vieques. The Navy completed its departure on May 1, 2003, after a period of civil disobedience that transfixed all of Puerto Rico and refocused its national identity.

The fight to stop the use of Vieques as theatre of war—in fact, a struggle with many chapters over the course of several decades⁴—started its final push two days after the death of Sanes. On that day, April 21, 1999, a group went to the observation post on Navy property where the bombs fell and placed a cross in Sanes' honor. As the story goes, one of the members of the group, Alberto "Tito" de Jesús, also known as Tito Kayak, decided he would stay up there, at least until someone else took his place. Cacimar Zenón, the son of the president of the fishermen's association, joined him the next day, and then the group's numbers continued to multiply.⁵

The protest movement constantly intertwined religious iconography with the struggle to commemorate the victims of cancer, apparently a result of military pollution, and to invoke peaceful resistance. By the end of May, the civil disobedients placed the final nail in a small open-air chapel on the beaches of the actual bombing range, a part of the Navy property on the Eastern tip of Vieques where the Sanes bombs were presumably intended to land. The Catholic Church threw its support behind the civil disobedience, and two bishops visited the bombing range in flagrant violation of federal law.⁶ More and more protesters came to camp on the

⁴ Two books that the reader may want to consult are Barreto, A.A. Vieques, the Navy, and Puerto Rican Politics (2002) and K. McCaffrey. Military Power and Popular Protest: The US Navy in Vieques, Puerto Rico. (2002).

Pérez-Riera, M. Cuando lo pequeño se hace grande. See also GATP, p. 21.

[°] GATP, p. 22.

bombing range and on the areas adjacent to the observation post where Sanes died; some stayed, while others cooperated by transporting food and supplies. The news media was also there, with tents and transmitters, and every visit by a local or foreign politician, church leader, or celebrity was dutifully and solemnly documented.⁷ Reporters not only came from Puerto Rico, they came from all over the world to cover a story about a local opposition to the strongest military force ever.

The images were powerful. I was living in Los Angeles during those years and I gathered bits and pieces of the unfolding story mostly through news clippings sent to me by my parents and what I heard on National Public Radio. The Navy's bombing range, the part that is like the machete's handle, became the ground zero of the opposition. Leaders of the camps, usually men, would take reporters into the most pounded areas of the bombing range to see the bullet-pierced carcasses of tanks. These leaders would explain how the thick steel walls had holes that could only have been made by ultra-hot uranium-tipped bullets, prime suspects in Gulf War Syndrome. The Navy had to retract their previous denial and acknowledge that these accusations were true. The cameras then would turn from the tanks to sweep over the landscape below: a cratered, dry, brown lagoon where ammunition shells, some the length of a person, stuck out like pins from the bare earth or lay on the ground with their heads squeezed like an accordion.

Over the course of a year, eleven formal camps set-up on the range,⁸ such as those of the teachers union and the Puerto Rico Independence party, whose leader, Rubén Berríos-Martínez, was a permanent fixture on the range. Many, including Berríos-Martínez himself, weathered a hurricane at the rickety camps. The FBI, federal marshals, Navy troops, and Puerto Rico state

¹ The reader who would like to read about the media representation of the events may want to see Jiménez, F. *Vieques y la prensa: el idilio fragmentado.* (2001).

[°] GATP, p. 24.

police paid the camps a visit on May 4, 2000, to arrest a total of 231 people.⁹ Once again, the output of images from the bombing range were extraordinary and unusual: unarmed civilians of all ages, many singing or praying, were rounded-up by troops in full body armor, helmets and goggles, backed-up by helicopters and battleships.

The cause was also taken up outside the bombing range in many different ways. One of the ways was in the largest public demonstrations ever witnessed in Puerto Rico. The Vieques cause became what everyone agreed upon inside a political sphere formerly marked by rancorous disagreement over anything and everything, but especially Puerto Rico's political status and future national destiny. It became a bumper-sticker issue. Any form of dissent by a government figure was equivalent to political suicide, and it showed in the ballot box during the 2000 elections when the pro-statehood party lost most of its slots and its grip on the governorship.

After the military dismantled the protestors' encampments, the military operations started again under new rules set by President Bill Clinton and with the promise of a referendum on a possible end to the relationship with the military on Vieques.¹⁰ The protest movement rejected any compromise that did not entail an immediate stop to the practices. Their response was to persistently enter the bombing range and act as human shields to disrupt the practices. Every practice that was cut short was an unplanned expense for the Navy. A secret society of hooded guides emerged who would take the new wave of civil disobedients through holes made in the Navy's fence. The location of the holes was kept tightly guarded as long as possible. Some protestors purposely walked along the fence to eventually get arrested in full view of the press cameras. Others hiked for days through the forest to arrive at the bombing range. Over the course

GATP, p. 25.

¹⁰ Clinton, W. "Directive to the Secretary of Defense, Director, Office of Management and Budget." January 31, 2000.

of four years, nobody that penetrated the military perimeter was seriously hurt or killed, despite the dire words about live ordnance from the Navy.

Demonstrations also occurred at the main entrance of the Navy's Camp García on the interior of the island; like the bombing range, they also filled it with banners, crosses and Puerto Rican flags. However, the bombing range became the main window into a struggle that grew larger than Vieques itself: an invocation of a *national* identity, separate from the unresolved *political* identity, to defend a part of the national body. Through the bombing range, Puerto Ricans reviewed a claim made by a relatively small community and deemed it legitimate. In asserting the validity of this claim, Puerto Ricans realized that they spoke with a common voice, and that was strikingly new.

What happens to Vieques in terms of everything from ecological repair and conservation to jobs is now the question on many minds. The coalition of community groups demanded not only demilitarization, but also clean-up, land return to municipal authority and administration, and sustainable development. The international hotel corporations that have already started to set up shop are also interested in what happens next. No one really knows. In this thesis, I explore how the military shapes that future by the way it represented the landscape's past.



Along the gates of Camp García.

A primer to the military land use of Vieques and its effects

The island of Vieques is a political municipality of Puerto Rico with its own mayor; however, between 1941 and 2003, the U.S. Navy Atlantic Fleet owned and managed more land than the municipality itself. Since May 1, 2003, the U.S. Department of the Interior has inherited the position of prime land-holder. The manager of the former military property, now known as the Vieques National Wildlife Refuge, is the Fish and Wildlife Service. The land under federal administration now constitutes the largest wildlife refuge in the Caribbean.¹¹

Vieques is approximately six miles East of the nearest point on mainland Puerto Rico (the former Roosevelt Roads U.S. Naval base in Ceiba) and twenty-two miles Southwest of Saint Thomas, U.S. Virgin Islands. Vieques is approximately 22 miles long, 4.5 miles wide and covers 33,000 acres. The military owned 23,000 of those acres, roughly two-thirds, divided into an Eastern and a Western area.¹² The approximately 9,000 people of Vieques lived for sixty years in between two military properties on an 11,000 acre strip. This strip has two towns, Isabel II and the Esperanza fishing village. The federal government returned a part of the Western land to the municipality of Vieques in 2001, but still holds around 19,000 acres overall.¹³

The Navy used the Western land principally as an ammunition storage depot. The East side of the island was part of something they called the Inner Range. This Inner Range wasn't just a piece of land, but an enormous 195,000 square-mile game board that covered more ocean surface than land.¹⁴ Actually, this is inaccurate. More than a game board, it was a volumetric game space that stretched infinitely into the air and to the sea bottom.

¹¹ USFWS. "Vieques National Wildlife Refuge Welcomes Public to Eastern End of the Island." April 30, 2003.

¹² US Army Corps of Engineers, December, 1998. p. 4-48.

¹³ USFWS. "Vieques National Wildlife Refuge Welcomes Public to Eastern End of the Island." April 30, 2003.

¹⁴ US Army Corps of Engineers, December, 1998. p. 4-48.

The land of East Vieques that was part of the Inner Range was further divided in two parts. One part was the infamous bombing range, also called the Atlantic Fleet Weapons Training Facility. The rest of the Eastern land owned by the Navy was called the Eastern Maneuver Area and was used to train amphibious units, battalion landing teams, and combat engineering units.¹⁵ Camp García is at the edge of the maneuver area; it has an airstrip and other buildings now used by the Fish and Wildlife Service. To go visit Bahía de la Chiva or other South coast beaches that Fish and Wildlife has opened to the public, one goes through the gates of Camp García. On my last visit to the island, the protest banners and a small field of white crosses still stood beside the gates.

The Navy seems to have been fond of Vieques because they could do so much there. They would practice beach landings, special operations parachute drops, and small-arms target practice in the maneuver area. They could practice shooting big artillery shells from the dry forest into the bombing range. They would shoot from the ground into the air, from the air onto the ground, from the ground to the sea and vice versa.¹⁶ By their accounts, they could create realistic and integrated scenarios that simulated true combat with coordination among different units and even different countries; according to them this kind of multi-use space was hard to come by anywhere else.¹⁷ (Did the military find it this way or make it into that?)

Furthermore, Vieques occupied a strategic location, with weapons storage space close to Cuba and the Panama Canal. Even though it was managed by the Navy, other military branches would practice on the range and used it to prepared for combat in the Middle East and the

¹⁵ US Army Corps of Engineers, December, 1998. pp. 4-48 and 4-49.

¹⁶US Army Corps of Engineers, December, 1998. p. 4-49.

¹⁷ Commander US Second Fleet and Commander US Marine Corps Forces Atlantic. July, 15, 1999. p. ii.

Balkans.¹⁸ The success of the trainees would be "scored" from the observation post on Cerro Matías in the Eastern Maneuver Area, colloquially renamed Monte David after David Sanes-Rodríguez perished there.¹⁹

The environmental impact of the military use of Vieques is not fully measured yet. Just like there were two very distinct military land uses on Vieques—one for storage on the West and one for practice on the East—there seem to be two different pollution profiles. The extent of the pollution that is already known and what is speculated is too long to describe here. In fact, this is not what I would like to focus on; part of the reason why I have written this work is to uncover the influence behind what does or does not get measured or recorded.

A general overview reveals that synthetic chemicals dominate the West and heavy metals dominate the East. On the West side, the military employed industrial solvents to clean vehicles and equipment, used lead-based paints, and handled these chemicals carelessly (by their own account).²⁰ Presumably, the East side of Vieques will turn out to be much more polluted than the West. Each condition of pollution is a complex case study in itself. To name the major problems: the presence of discharge chemicals and missile propellants; disintegration and corrosion of metal debris from target elements and exploded ordnance; unexploded ordnance; the use of napalm and of the uranium-tipped bullets; and finally, alleged testing of chaff, a fine aluminum powder sprinkled from the air that distorts radar waves.²¹

The military created several—at least fourteen—dump sites characterized by inadequate initial site preparation, therefore pollutants readily leached into soil and water. Solvents, diesel

¹⁸ Christensen, Jr, R.A.E.E. October 4. 1994.

¹⁹ US Army Corps of Engineers, December, 1998. pp. 4-48 and 4-49.

²⁰ Navy's community information website, navy-vieques-env.org.

²¹ See Appendix I. See also Servicios Científicos y Técnicos, Inc. "Impactos de las actividades de la Marina en Vieques." November, 2001.

fuel, solid waste and even the weapons themselves were thrown into these dumps.²² There are two known submarine disposal areas in the waters of the Southeast where the contents of photographed barrels remain unknown. Coral reef destruction has also been documented.²³ This is a very general picture, without a doubt; there is information available on the web and in libraries for those who wish to look further into the matter (see Bibliography).

During the sixty years of military activities, airborne pollutants and pulverized rock particles reached the civilian population through the strong East-to-West Caribbean trade winds, while people might have ingested other chemicals through pollution of aquifers and drinking wells as well as ingestion of plants and animals with high levels of heavy metals.²⁴

Dr. Arturo Massol and Elba Díaz have documented high levels of copper, zinc, nickel, cobalt, and cadmium in crustaceans. They showed that crustaceans on the bombing range had levels of these metals up to eighty times higher than typical market samples. Then they found that even in civilian areas, the crustaceans had levels between ten and twenty times higher than typical market samples. Furthermore, they performed similar experiments with plants and vegetables. The scientists discovered high levels of lead, cobalt and manganese in plants, and also found lead and cadmium in pumpkins, peas, pineapples, and yucca ; common staples of the local diet. They deduced that heavy metals accumulate and move through the food chain starting at the bombing range. As a solution, they suggested an immediate moratorium on the consumption of certain fruits and vegetables, along with government aid to supplement the diets of the local population with healthy alternatives.²⁵

²² Herrera, F.L. 2001 and the Navy community relations website, navy-vieques-env.org.

²³ Porter, J. in GATP, p. 69.

²⁴ Colón, J.L. "Sinópsis sobre la situación ambiental de Vieques." August 8, 2001. Digital presentation materials provided by the author.

²⁵ Massol, A. and E. Diaz, 1999 and 2001.

While the U.S. Navy has commissioned some of its own studies, which have been highly disputed by activists, other scientists with active roles in the Vieques struggle have done their own partial monitoring. A price tag on the cleanup of the pollution ranges somewhere between \$200 million and over \$1 billion. The government-appointed Special Commissioner for Vieques and Culebra deems that the highly symbolic and meaningful, contaminated bombing range will never be opened to the public because of its risk to humans.²⁶

²⁶ Férnandez-Colón, J. "Casi imposible" January 6, 2004. P. 25.

{ Part 1 }

The Vieques "Paradox,"

or

Just How Luxurious

Pollution Can Be

Palms, naturally

The tourism industry in Puerto Rico and elsewhere has disseminated the image of the coconut palm-tree far and wide because it is closely associated with sand, beach, and warmth. At the same time, this tree's diverse uses made it famous the world over within a mutually beneficial relationship between consumer product and tourism. The meat of the coconut is eaten raw or it can be used as an ingredient in all sorts of foods, even as a dry-preserve. From oils to soaps, the coconut is remarkable, and even other parts of the tree are also useful. The trunk can be used for posts, walking canes and for making a charcoal type, to just mention a few things.²⁷

The coconut palm's reliability endeared it with the Caribbean to the point that it is used as a decorative plant, even in cities. Even other species of palm have gained value as decorative elements because of the romance with their more productive cousin.

The coconut palm first appeared in the travel journals of the Spanish colonization in 1590. It adapted perfectly well to tropical coasts all over the world, but is believed to have first developed in Malaysia or the Pacific region.²⁸ It was not native to the Caribbean, but was extensively planted for an obvious economic motive. If it hadn't been, would it be the leisure icon that it is today? It is hard to picture the tourism industry singling the palm out for attention without its long lineage intertwined with human life.

Coconut palms adapted perfectly to the Caribbean climate and seem to grow wild along Puerto Rican beaches, but palms do not survive tropical weather well on their own. Like many other trees, their leaves are very vulnerable to high winds and this is why they often are amongst a dense cover made up of many species that protect one another. Wherever there is a

²⁷ Little, E. et al, p. 20.

²⁸ Little, E. et al, pp. 11-31.

concentration of palm trees on a coast, whichever species they may be, the human hand has surely created it. But, while it is incredibly productive for humans, the palm is less helpful for the delicate balance of the fragile coast because it protects the beach poorly from erosion.

In the agricultural era, the untimely destruction of coconut groves in a hurricane probably was a business expense that the agriculturalists had to tolerate. Nevertheless, the international tourism industry, attempting to lure the global leisure class, has intensified the propagation of this plant in recent years. It's a handy selection for hotels because its foliage is very high off the ground and it frees the path to the ocean.

Vieques has several species of palms that have been around since before the arrival of Columbus in the Caribbean, but none of these is the coconut type. Vieques' coasts were no exception to coconut harvesting, though it's hard to visualize the former predominance of the coconut in today's landscape of white-sand beaches that are so widely admired. Meanwhile, other coasts on the island are quite rocky or remain dense with mangroves, unlike the beautiful Southern beach of Bahia de la Chiva, which was one of many groves in the past, or the dreamy tropical visions presented all over the world in mainstream travel articles. Nevertheless, a few palm trees of different types grow wild on Vieques, but not too many. This will change to some degree in the years to come.

On the other hand, a coconut grove that descends from the agricultural period remains on the Northwest tip of Vieques.²⁹ This large palm swath is protected as part of the Laguna Kiani conservation area.³⁰ In 1972, researchers compared an aerial photograph to a 1941 U.S. Geological Survey map to and found that approximately 18% of the mangroves at Laguna Kiani

²⁹ See Appendix III (Map).

³⁰ There is a significant forest of fan-leaved palm elsewhere on Vieques, said to be an endemic plant, but this is an inland high-elevation variety. See Woodbury, R.O. in EQB, p. VII-11, and GATP, p. 38.

had disappeared in those twenty years under military administration. They recommended protection of the entire area, but the military put it off for over ten years.³¹ What many now value as a wilderness conservation area is actually a reduction of a once more extensive and betterfunctioning mangrove system. What I want to underscore is that the surviving mangroves share space with another remnant, a once productive agricultural grove of coconut-palms, in a frozen representation of its past dynamism.



Punta Arenas. The grainy texture of the vegetation on the jutting peninsula are the coconut palms of the Laguna Kiani conservation area. The vegetation around the lagoons are mangroves. The top lagoon is Kiani. (See also Map at Appendix III)

Furthermore, the Laguna Kiani conservation area, along with seven others, was

established as part of a 1983 agreement, or Memorandum of Understanding, between the then-

³¹ EQB. Pp. IX-5.

governor of Puerto Rico, Carlos Romero-Barceló, and the U.S. Navy.³² The military, in turn, used these conservation areas in turn to justify their presence in Vieques to the U.S. Congress during the next twenty years. Now they fulfill an iconic presence and an ecological theme that is essential to the tourism industry. Tourists come thinking they will discover their idea of tropical nature, unaware that they gaze into an arranged vitrine that is devoid of humans, especially the humans who labored and shaped this landscape in the agricultural past.³³

If the veneer of the agriculturally-made landscape is desired but not present, then the tourism industry creates it. For instance, Wyndham Hotels and Resorts is a global brand with sixteen resort franchises in the Caribbean, six of which are in Puerto Rico, and one of those on Vieques. One of their franchise hotels on Puerto Rico's Eastern seaboard perfectly illustrates how the palm tableaux made a powerful return in the 1990s. From the ferry route between Vieques and Fajardo, one can discern a scenographic process that is harder to grasp when on the coast itself. The left side of the image is of a misleading homogeneity. A dense green foliage belies the great variety of coastal species that assemble it. This abruptly gives way to a series of neatly arranged palm-trees. So far, no hotel, but the coast at that point has been converted to the agriculture-derived generic Caribbean image. Only after the appearance of the palms does the hotel feel ready to make its debut a bit further down the coast, to the right (see image, next page).

³² Romero-Barceló, C. and J. F. Goodrich. "Memorandum of Understanding Regarding the Island of Vieques." 1983.

³³ Those interested in following this thread should refer to Williams, R. "Ideas of Nature."



The Wyndham El Conquistador Resort in Fajardo, Puerto Rico.

As tourism corporations establish a more substantial presence in the Vieques-after-thebombs, they will continue the pattern of the Wyndham in Fajardo. The military, perhaps with some dose of naïveté, eased people's assimilation of landscapes like the Wyndham's by protecting places like the Laguna Kiani area. The farthest thing from the Navy's mind was how it would help the future resort industry in Vieques; they never even thought they would leave Vieques, for that matter. However, the landscape they left behind works very well with what the resort business needs to market to tourists.

In 1983, the military did not protect Laguna Kiani just to strike a compromise with the government of Puerto Rico, which was suing them—though that was an added benefit—nor to lay the groundwork for the tourism business, although it will prove to help them in the long run. Their agenda at the time was to physically conceal one of their toxic waste dumps. Military pollution in Vieques on many occasions corresponds directly to what became conservation areas, as will be further detailed in the next section. The tourism business, on their part, have no incentive to debunk this construct the military came up with.

Conserving pollution on West Vieques



Ammunition storage magazine.

The Navy called their Western military land holdings on Vieques the Naval Ammunition Support Detachment or NASD, for short. It was a weapons depot with ammunition stored in concrete shells partially burrowed in the earth. After the spark of the 1999 bombing and the ensuing historic outburst of activism, the Navy transferred the land on that portion of the island to comply with a directive from former President Bill Clinton.³⁴ The February 2000 decisions made by the White House in the Clinton administration's last year called for, among other measures, the return of the depot to the municipality. The appeasement strategy, though, did not work; activist groups continued to push for an immediate rather than a gradual pull-out, also known by the *ni una bomba más* ('not one more bomb') slogan, and so the incursions into the bombing range on Eastern Vieques pushed on.

Nevertheless, in partial accordance with the given orders, the Navy handed over some of these lands on April 30, 2001, after coordination with several agencies and with Congress. This coordination yielded a land use plan released by the Puerto Rico Planning Board,³⁵ which would have been in charge of planning the entire property if all of it had been returned. But, the Navy did not return absolutely everything to the municipality that Clinton apparently expected. He mentioned this in a radio interview with journalist Amy Goodman before the Bush-Gore 2000 elections.³⁶ This declaration has already been mostly forgotten, although the language in the Clinton order is vague.³⁷

³⁴ Clinton, W. "Directive to the Secretary of Defense, Director, Office of Management and Budget." January 31, 2000. Or see Kozaryn, L. "Clinton Unveils Vieques Plan, Calls for Vote." See Jiménez, F., pp. 135-153 for an entire explanation on the substitution of the term "agreement" in the press and in politics in place of "directive," which is what was unilaterally decided by Clinton, rather than agreed upon with the government of Puerto Rico.

³³ Endi.com (*El Nuevo Día Interactivo*), "Propuesta para los terrenos del oeste de Vieques," the Puerto Rico Planning Board.

³⁶ Clinton, W. to A. Goodman. "Exclusive interview with Bill Clinton." *Democracy Now!* Pacifica Radio. November 8, 2000.

³⁷ Clinton, W in the directive says: "the Navy will submit legislation to the Congress to transfer land on the Western side of Vieques (except 100 acres of land on which the ROTHR and Mount Pirata telecommunications sites are

In this plan, 4,000 acres were given to the Vieques municipal government for low-density residential and tourism development; 3,100 for the U.S. Fish and Wildlife Service as conservation zones; 800 acres for the Puerto Rico Conservation Trust, an entity that protects wilderness and historic places; and 100 acres were kept by the U.S. military for a so-called drug-interdiction radar.

This land use plan has a long lineage that reaches back to the 1972 research³⁸ in which scientists initially proposed the creation of the eight conservation areas, including Laguna Kiani. It is a land use plan that was 30 years in the making.

In the late 1970s or early 1980s, Navy officials started to conduct interviews with officers who had been stationed on Vieques.³⁹ The goal was to help identify toxic waste sites. At the root of this investigation was a 1978 lawsuit by the government of Puerto Rico. If the Navy compared the conservation proposals in the 1972 research with their interview data, they could have gotten an idea of which sites would have been in their best interest to acknowledge as polluted and to coordinate those with the proposed conservation areas. The 1978 lawsuit was resolved in the 1983 agreement that formalized the eight conservation areas proposed in the 1972 research.

Conservation areas emerged as useful tools in ways the Navy perhaps did not perfectly anticipate when they agreed to them in 1983. For example, in 1993, when a bomb missed its target by ten miles, activists reinvigorated efforts in Congress and put pressure on the White

located)." On the one hand, it implies that *everything* is to be returned *except* for the 100 acres of federal telecommunications, but on the other hand it says *land* without specifying a quantity. It leaves the door open for the Navy to satisfy their own needs through legislative process.

³⁸ EQB, 1972.

³⁹ "Site identification began in the late 1980s. Based on interviews with current and retired station personnel, historic records, aerial photographs, and field inspections, 17 potentially contaminated sites were identified at the NASD." Navy's community information website, navy-vieques-env.org.

House to stop military maneuvers on Vieques.⁴⁰ Rear Admiral Ernest E. Christensen, Jr., the highest ranking Department of Defense representative in the Caribbean at the time, testified⁴¹ before the Subcommittee on Insular and International Affairs in opposition to a bill presented in the House by Puerto Rico Resident Commissioner Carlos Romero-Barceló (as governor, he previously struck the 1983 agreement).⁴² In response, Christensen highlighted to Congress the Navy's role in environmental conservation, an argument they had laid the foundations for more than ten years earlier with the creation of those eight conservation areas, which also happened to conceal some of the possible pollution they had identified. The conservation areas, therefore, acted first as pollution veil and later as green wash.

The land use plan released by the Puerto Rico Planning Board in 2001 shows that the federal conservation zone spans the entire Western coast and many interior areas beside this coast. Amidst the federal property along the coast is the 800 acre wedge deeded to the Puerto Rico Conservation Trust. If one adds the state and federal-level conservation areas together, the amount of land that actually was turned over to local control was almost half of the entire depot. In fact, when one adds the 100 acres for the military radar, what is left under local control is exactly half of the former Navy property on West Vieques and presumably much less than what Clinton expected.

⁴⁰ In the first year of his presidency, Clinton was not willing to concede what he ended up giving up in his last. In 1993, he was in a bind with the "Don't Ask, Don't Tell" policy on gays in the military and was not about to raise the military's ire on the Vieques issue. For a complete account of the second-tier status that Vieques received in light of tensions with the military over the "Don't Ask, Don't Tell" gay-treatment policy under Clinton see Barreto, A., pp. 34-36.

¹¹ Christensen, Jr, R.A.E.E. October 4. 1994.

⁴² The Resident Commissioner is Puerto Rico's voice without vote in the US Congress. Carlos Romero-Barceló, founding member of the pro-statehood New Progressive Party, was governor of Puerto Rico from 1976 to 1984, and resident commissioner from 1992-2000. Romero-Barceló signed the 1983 Memorandum of Understanding, or "Fortín Accord." It attempted to diffuse calls for the Navy's departure from Vieques. I do not suggest that this accord had Vieques' best interests in mind. This accord hoped to resolve the protest calls mostly by stimulating military-industrial complex investment in the Vieques economy. See also Nazario, *Z. The Battle of Vieques*.

I have not attempted to assess if the land transferred to the Municipality is sufficient for prosperous economic use by Vieques; perhaps it is. One can even entertain the notion that the conservation half of the depot is a boon to the economic success of the land transferred to local control, as some have claimed. An alternate issue is: how much of the conservation area is polluted and how does that affect the environmental quality of the half given to the Municipality? This is not something that I can measure either.

To approach those questions, the local community and their leaders must first come to terms with how the landscape communicates a story about an invitation to visit and visually consume the image of tropical nature as a means of leisure and recreation. The story sentimentalizes images derived from an agricultural past, but it must be stressed that it did not begin with that intention. There are endless benefits to maintaining the storyline, but the questions come back to what forces first willed these conservation areas into their location, against the intentions of many, even the President, and the answer has to do with toxic dump sites.

In addition to several remarks in Rear Admiral Christensen's testimony about the urgent national security need for the depot, he highlighted the Laguna Kiani, Monte Pirata, and Playa Grande conservation areas as additional benefits that Puerto Rico and all of humanity, he would have Congress believe, can enjoy. He specifically made a point of stressing the access that the military provided at the time to Green Beach and the Laguna Kiani mangroves "in order to allow everyone the enjoyment of the beauty of our conservation areas on the Naval Ammunition Support Detachment (the depot)."⁴³

⁴³ Christensen, Jr, R.A.E.E. October 4. 1994.



West Vieques Land Use Plan.

The yellow areas are federal conservation, nearly half of the former weapons depot.

About half-a-year after Rear Admiral Christensen's testimony, the Department of Defense appealed directly to the Committee on National Security which oversees the Subcommittee where Christensen testified, because they feared that the bill would reach the full House floor. In a letter to Rep. Floyd D. Spence, head of the whole Committee, Defense's General Counsel's office states that:

The 8,000 acres in question, a part of Naval Station Roosevelt Roads, is in active use by the Department of the Navy for the storage of munitions and the protection of three major environmental conservation zones. The storage facility is strategically located and mission essential to the Department of Defense.⁴⁴

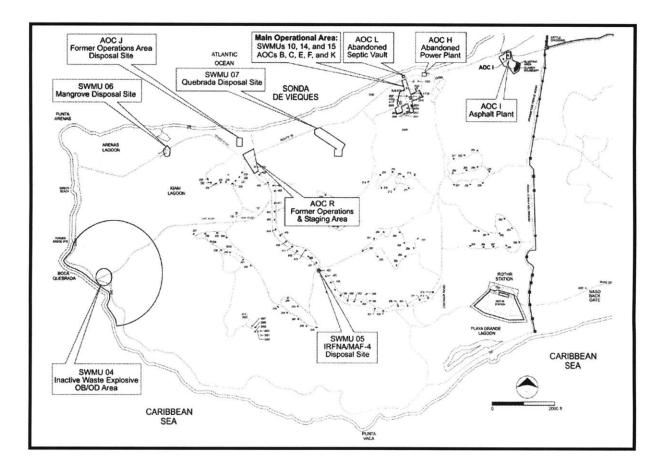
The counsel goes on to make a mysteriously unexpanded remark in her letter about having doubts that "modern regulatory and environmental requirements," coupled with an estimated cost of \$300 million, would allow the movement of munitions off the weapons depot. So, what exactly is on this base that modern laws would not allow to go anywhere else...in the same vicinity as three "major environmental conservation areas"? Or, did she mean that Congress and Puerto Rico should not worry about that because it is just a matter of expense?

The U.S. Navy operated five dumps on the weapons depot in West Vieques.⁴⁵ Four out of these five dumps are within the boundaries of the conservation zones of the Western coast in the 2001 land use plan.⁴⁶ One of these, the Mangrove Disposal Site, lies immediately adjacent to the Laguna Kiani. Another one of these, a weapons incineration dump, is less than 4,000 feet from Green Beach and Punta Arenas, which were also mentioned in the congressional testimony.

⁴⁴ Miller, J. to Hon. F.D. Spence, Committee on National Security, US House of Representatives, August 1995. "Naval Station Roosevelt Roads" in Ceiba, Puerto Rico, was the military overseeing body directly in charge of the command of Vieques.

⁴⁵ Herrera, F. quoted in GATP. Pp. 61-63.

⁴⁶ One of these four sites within the conservation zones has already been proposed as an NFA, or "No Further Action." Henry, T. E-mail correspondence. February 14, 2004.



West Vieques Toxic Waste Sites, formerly the Naval Ammunition Support Detachment. The Laguna Kiani Conservation Area is on the Northwest tip (Kiani Lagoon). The remnant coconut grove is at Punta Arenas. Next to Kiani Lagoon is the Mangrove Disposal Site or "SWMU 06." The map documents the 17 sites on this side of the island identified by the Navy as potentially toxic.

The Navy explains on its community relations website for Western Vieques⁴⁷ that these disposal areas ceased to operate in the late 70s and early 80s.⁴⁸ The disposal practices at these sites were never well documented by the Navy; records are lost, they claim, and modern environmental safeguards such as clay linings were never used, according to the same Navy website. Solvents for cleaning airplanes and vehicles, industrial-strength lubricants, and lead-

⁴⁷ http://www.vieques-navy-env.org/

⁴⁸ I cannot confirm if the Navy is being honest when they say that these disposal areas ceased functioning as such in the late 70s-early 80s. If they did cease operating, the question then is why. One hypothesis might be the opening of environmental litigation against them around the same time (Brown vs. Romero-Barceló, 1978). See GATP, p. 16.

based paints were also dumped at some of these sites, in addition to solid waste and the open incineration site.⁴⁹

The Navy took measures to control the environmental hazard of these disposal sites and their potential liability when the government of Puerto Rico filed the lawsuit in 1978. The matter was eventually settled in the 1983 agreement. The agreement locked these problems behind the unassailable title of conservation areas. The military invoked this designation to justify the presence of the Navy on Vieques to Congress; in 2001 they were raised to the management system of the more publicly-legitimate federal service of Fish and Wildlife, thus even harder to denounce as pollution covers, and their territorial area was augmented. One such dump, for example, was used between the mid-60s and 1973, according to the Navy website. At some point after 1973, the waste was removed and taken to an "off-base landfill," and no records were kept as to where that is nor what the waste exactly was. The Navy's very own website states that shell casings and unexploded weapons remain on a stream that drains right into the Vieques Sound in the Caribbean Sea. I cannot be so precise as to state that the unearthing of the waste occurred after the 1978 lawsuit, yet nothing I found proves otherwise. In addition, Congress passed CERCLA,⁵⁰ also known as the Superfund law, in 1980 and this makes the timing of the dump closings even more suspicious.

Several different maps illustrate the conservation areas proposed in the 1972 research, published as the 1972 Survey of Natural Resources. These areas were delineated by prominent botanists and biologists working for the U.S. Forest Service and the Environmental Quality

⁴⁹ US Navy in http://www.vieques-navy-env.org/.

⁵⁰ CERCLA, or Comprehensive Environmental Response Compensation and Liability Act, imposed for the first time the burden of clean-up costs on the responsible parties. See Sattler, Yi et al, p. 15.

Board of the Commonwealth of Puerto Rico (EQB) as forestry and animal sanctuary preserves.⁵¹ These researchers proposed the sanctuaries more than thirty years after the military started operations on Vieques. The military did not act on these proposals for over ten years and only after they faced a government lawsuit and the enactment of Superfund.

One of the conditions negotiated in the 1983 agreement was that the Navy had to reveal to the public the sites that at some point in time were polluted, based on the Navy's interviews with base personnel as well as limited samples. They named a total of seventeen toxic sites, including the five dumps.⁵² Out of these seventeen sites, they went on to request to have nine cleared as no-longer harmful.⁵³ This request went into public hearings on January 23, 2004, and must be approved by the Puerto Rico Environmental Quality Board and the U.S. EPA.⁵⁴ At the time of this writing, no decision had been made.

Out of the four dumps that overlap the conservation zones, one is a "No Further Action" (NFA) request. That leaves eight sites that the Navy still continues to investigate as possibly harmful and five are on the land relinquished to the Municipality. Even though it has been over twenty years since these sites were identified, eight are still under review and no significant action has been taken on any of the others. Assuming that the dumps on conservation zones will be cleaned to a low standard, and if all the NFAs are approved, then only five sites remain out of seventeen originally that could be cleaned-up to the highest standard.

Why would the conservation areas be cleaned to a low standard? A wilderness conservation area is not so stringent in clean-up standards as, for instance, an area planned for housing. This is what is called a "risk-based clean-up;" in the remediation business, clean-ups are

⁵¹ Figure VIII-1 and Figure IX-1 in EQB, 1972.

⁵² Henry, T. "Draft Final No Further Action Report," July 11, 2003. P. 3.

⁵³ Fernández-Colón, J. " Solicita la Marina." P. 24.

⁵⁴ Fernández-Colón, J. " Solicita la Marina." P. 24.

priced by answering the question "how clean is clean?"⁵⁵ Technological unfeasibility or difficulty are also good reasons to get the project to aim for a lower clean-up goal; obviously this would also be proportional with costs. Whether or not the site changes land use in the future is irrelevant to the Navy. In fact, if new contamination is found, the new land use can be faulted for the pollution even if it technically didn't cause it. This is why it is in the Navy's fiscal interest that half of Vieques remain as a federally-managed wilderness refuge.⁵⁶

The Laguna Kiani conservation area, like the other conservation areas and the South coast beaches, is a manipulated panorama inscribed by humans over many decades. The military twisted perceptions of the landscape to present it as fixed, static nature at forums like the U.S. Congress. Furthermore, they claim to have defended it. In the next section, we will see how much the media also carried forth the same notions for the Navy. In the 80s and 90s, when the Navy and the Department of Defense never thought they would lose Vieques, their claim was a verbal weapon to retain territorial control while also keeping up the pollution camouflage. Instead of stopping there, they were also beginning to learn the mechanisms of representing a wilderness without humans, and those representations became the ticket to walk away with impunity from this mess.

⁵⁵ Fernández-Colón, J. " Solicita la Marina." P. 24.

⁵⁶ This was reasserted by a toxicologist that I consulted regarding the number of contaminated sites on Western Vieques. "When there is a site that is too expensive or not technologically feasible to be cleaned up to a useful condition, the military's first goal is to hand it over to DOI (Department of the Interior). It does not leave the federal government, thus reducing liability, but it does get off the military's books." Henry, T. E-mail correspondence. February 14, 2004.

Postcards from Vieques



The road to the Wyndham Martineau Bay, seen behind the beach vegetation.



The Wyndham Martineau Bay exterior.

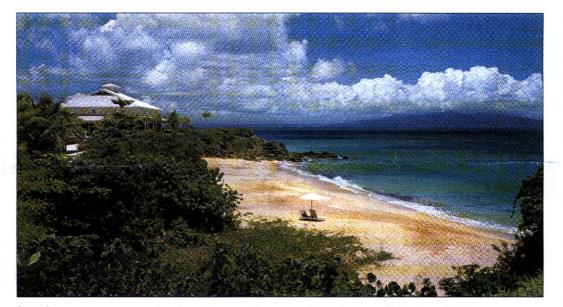


A different kind of fence: Bahía Caracas on the Vieques south coast within the Wildlife Refuge boundaries.

ADHotels

Wyndham Martineau Bay

French and Spanish Influences Converge in an Island Haven on Vieques Architecture by Donald F. Evans, AIA/Interior Design by Dan Nelson, ASID Text by Michael Frank/Photography by Scott Frances



WENTY YEARS AGO, when Roberto Cacho first visited, and fell in love with, Vieques, the lush, unspoiled seascape, modest towns and sleepy pace of island life reminded him of Manatí, the small beach community on the north coast of Puerto Rico where he grew up. "I was just out of college," Cacho says, "but already I felt a nostalgia for the simpler, sweeter Caribbean ways that were then-as noweroding day by day and year by year. Vieques embodied the best of those times and

that place: It was pristine, calm, a little bit forgotten and a lot undervalued."

It was so undervalued, in fact, that a young man just starting out in the world could manage, with a group of friends, to acquire a parcel of land about 40 acres in size. Two decades later, that parcel has become the Wyndham Martineau Bay Resort & Spa. Cacho and partners Joey Fuentes, Adam Anhang and Hugh Andrews have developed the hotel with estimable sensitivity to that little-bit-forgotten life that remains at the core of the Vieques experience.

Vieques has a particular story, and the hotel seeks to tell at least part of it. From the early 1940s until 2003 it was home to a vast U.S. naval base, whose bombing exercises and environmental policies were in recent years much contested by the islanders and others. After the Navy pulled out, its holdings-twothirds of Viegues, or about 22,000 out of 33,000 acrespassed into the hands of the Department of the Interior. which created, arguably as a

ABOVE: Wyndham Martineau Bay Resort & Spa is on the north shore of Vieques, eight miles from Puerto Rico. Florida-based architect Donald F. Evans designed the buildings.

"We wanted to keep the scale of the resort low and respectful of the landscape," Evans explains. OPPOSITE: A view from the veranda of the Great House, the main structure.

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(The) Department of the Interior (...) created, arguably as a kind of absolution for earlier governmental policies, the largest fish and wildlife refuge in the Caribbean, all of it on a single island. One important, and positive, legacy this leaves for Vieques is that development will be kept severely limited and perpetually in check.⁵⁷

The word "arguably" is key in this statement from the pages of *Architectural Digest*, in an article that promotes the Wyndham Martineau Bay Resort and Spa, the only chain-franchise resort on Vieques, which opened in 2003. Somehow, "severely limited development" is a positive legacy for Vieques. Who can be so certain that this is an absolution and not pay-back for demanding the military's departure? Furthermore, since 1983, the creation of wilderness conservation areas has been systematically lowering clean-up standards on Vieques.

From the perspective of the tourism industry, the illustration of an untouched nature handed over by the military needs to be perpetually renewed for each tourist that sets foot on the Wyndham Martineau Bay. The polluted, yet preserved, wilderness beyond the security of the blank concrete walls around the various guest villas assures for the *Architectural Digest* author, and for the post-Navy hotel industry on Vieques, two things: one, the guaranteed thrill of discovering a "virginal" landscape, ironically a discovery that is widely advertised beforehand in order to tempt the tourist dollar; and two, the perpetual charm of poverty and underdevelopment that the tourist can vicariously experience while on Vieques.

The inauguration of the Wyndham Martineau Bay Resort and Spa marked a monumental change in Vieques for obvious and not so obvious reasons. As one resident comments about the Wyndham in the *Smithsonian* magazine, "(...) as far as future developments, that will set the stage."⁵⁸ The landfall of the menace that the Navy so long kept away? "The beginning of the end

⁵⁷ Frank, M. "Wyndham Martineau Bay." Pp. 98, 100.

⁵⁸ Connelly, C. quoted in DuBow, S. p.78.

of the Vieques that we know,"⁵⁹ as another local said? The arrival of the inevitable? Or, the docking of a long-awaited economic miracle?

Or perhaps, the triumphal return of the coconut palm to Vieques? At the level of the resort's guest room, the palm reappears. "(Interior Designer Dan Nelson) commissioned toiles that feature palm-tree motifs, had them bordered with raffia and produced an unpredictable headboard."⁶⁰ The palm-tree motif also appears on some of the hotel lobby upholstery.

There is something surprising about returning to the vegetative element, however representational it may be, because it reminds the article's reader that no other mention of vegetation is made in the rest of the article. This is almost as if to say that the vegetation all over the hotel grounds were found and not "commissioned." The article headline credits the architect and interior designer but no mention is made of a landscape designer, whose hand is obvious yet downplayed. The palm, of course, plays a prominent role in the foliage of the hotel grounds, as one would expect with all of the interior references to it.

If the global tourism cartels profit enormously from the vitrine of conservation, then, at a place like this Wyndham, they return the military's gift, so to speak. They mirror a sentimental illusion of a paradise to communicate that the military defended nature, an ideal of tropical nature, especially from the hands of people. And it works. For example, take the following impressions of tourism reviewers from the newspapers. Reed Johnson, a *Los Angeles Times* writer, says: "paradoxically, the Navy preserved the beauty of Vieques for posterity;" Leigh Gallagher, for *Forbes*: "Vieques has some of the most beautiful beaches in the Caribbean. Paradoxically, it's the Navy's presence that has kept them that way;" Amy Graves, in the *Boston*

⁵⁹ Taxi driver quoted in DuBow, S, p. 81.

⁶⁰ DuBow, S, p. 81.

Globe: "the forests and beaches at each end of the island were never developed because the Navy occupies them - an ironic twist to the controversy."

This paradox forecloses on many dimensions of history, for instance: that the ugliest beaches on Vieques were made that way by the Navy, and that the two forest-covered tips of the island are also the most polluted. Besides, these tourists take for granted that the vegetation they see predates the military presence, therefore the military must have protected it. They now recognize paradise when they see it, but especially because the tourism industry has shown it to them. The mainstream consensus is that the military harmed, but in the end rescued, paradise. But that's not all.

In the following passage from the *Smithsonian* magazine, Shane DuBow explains how the idleness of the tanning tourist is the safest form of participation in Vieques life and just how luxurious pollution can be:

*Vieques is a paradox. The Navy's 60-year occupation has left the island largely undeveloped and free of the commercialism common to other parts of the Caribbean. But the pollution the military left behind may imperil paradise. Even so, apart from the likelihood of a nasty sunburn, a short-term tourist faces little health risk, say experts. And the lack of development means that the visitor has naught to do but bike, hike, kayak, ride horses, and honor the island's painful past by enjoying its hard-won peace and charm.*⁶¹

When DuBow says "lack of development," he reveals how even poverty is presented as a part of paradise's paradoxical charms, as if it was part of what is understood as natural. He gives approval to the tourism companies to sustain this charm. These writers, as much as any number of people, "see" the paradox manifested in the landscape everywhere. Gazing in order to locate the paradox goes hand-in-hand with passing judgment on the military, but in the same thought forgiving it. This is a gaze at a mirage; one that confuses the vegetation seen with a commodified the idea of pure nature, while it is a contentious product of human-driven changes. This literally

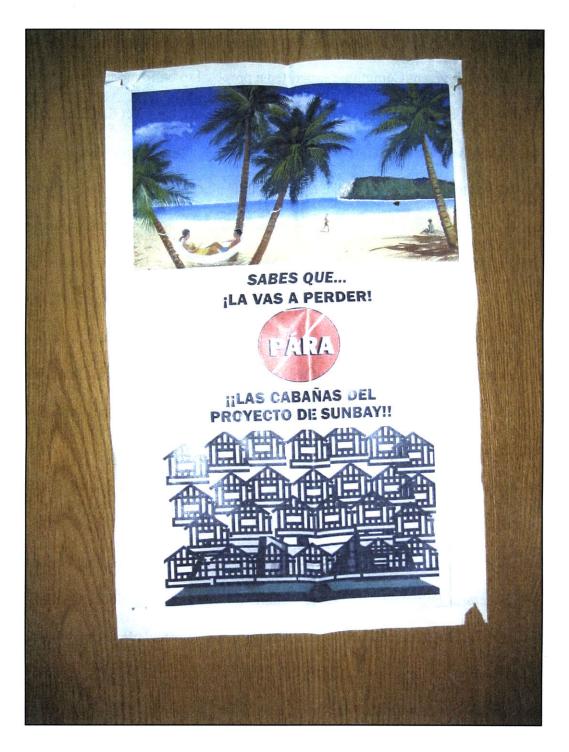
DuBow, Shane. P. 83.

is the gaze that searches for and that desperately needs to find the proverbial silver lining to the Vieques condition. This silver lining has a dual benefit: it facilitates the exit for the now-excused military-industrial complex, and rescues the tourist from feeling complicit in the problems of Vieques: the tacit consensus fundamental to global tourism's arrival.

Then again, there comes a moment when one realizes that there is no alternative but to *just* gaze at this landscape because any other engagement could be poisonous. The invisible pollution present throughout becomes a form of captivity, a way of enthralling, of subjugating the gaze, and by extension, the person. Simply put, the polluted flesh of crabs and the toxins in the tubers, for instance, assemble a flora and fauna which can be seen but not eaten, as even documented by scientists.⁶²



⁶² Massol, A. and E. Diaz (2000 and 2001). Revisit introduction or see Appendix I.



Flyer posted in Vieques opposing the Sun Bay Cabins Project.

In 2004, community groups including the Vieques Women's Alliance and the Vieques Pro-Rescue and Development Committee supported a proposal to build modestly-priced cabins for temporary stays at Sun Bay beach on the Vieques south coast, a project that they say can unite the beach and the wallet of the working class in vacation idyll. The individual or individuals opposed to this project posted a flyer in public places which included at the top a hand-drawn image of a beach with four lone people enjoying the sandy plain, four palm-trees in the foreground, and two of these people sharing a hammock between two palms. In the distance is a peninsula, or perhaps an island, that looks completely foliated: the next frontier to be conquered. The words below the image say: "sabes que (sic)... ¡¡la vas a perder!!" or "know what...you're gonna lose it!!" What is it that will be lost: the sandy beach in the foreground, or the peninsula in the distance that the four lonely tourists will conquer when the plebeians take over their deserted beach? Perhaps both.

This project was also attacked by prominent University of Vermont ecologist John Todd, inventor of the "living machine" grey water bio-filters and Time Magazine "Hero of the Planet,"⁶³ speaking through an editorial in *The New York Times*.⁶⁴ Along the same lines as the writer for *Architectural Digest* who called the Wildlife Refuge an "absolution," Todd calls it a "priceless gift." His column strongly advocates "eco-tourism," particularly taking advantage of the federal "protection" of lands, but who knows exactly what audience he means would participate in this eco-tourism and at what price? I am in no position to judge if the cabins project would ever accomplish the ecological damage that Todd promises, or if it would in effect cater to the "working-class families" that some community activists promise it will.⁶⁵

⁶³ Hallowell, C. "'Living Machines' that Make Water out of Sewage," March 22, 1999.

⁶⁴ Todd, J. "A Golden Opportunity for Vieques to be Green." July 26, 2003.

⁶⁵ Rabin, R. Personal Interview, January 21, 2004.

However, even an academic like Todd approaches the problem from a point of view that is blinded by the brightness of a sugar-sand beach, the charms of the palm, and the seductions of paradise. He not only excuses the military by calling the wildlife refuge an "accident of history," but also invites elitist enjoyment of paradise. "The magnificent white-sand beaches are almost deserted," he says. He seems gripped by the same spell as all the writers in the travel magazines are. "Deserted," as Todd says, because the Navy expropriated people that lived there.

He calls the refuge: "16,000 acres of untouched land," but what is the history of Bahía de la Chiva, for instance, if not "touched"? He goes on to state: "Vieques may one day be nostalgic for the era of Navy occupation," saying that the Sun Bay project destroys mangrove areas, yet why exactly would one be nostalgic for the Navy occupation that also was responsible for mangrove destruction, as seemed to have happened at Laguna Kiani between 1941 and 1972?



Coda

The Wyndham Martineau Bay is in for a great surprise in the years to come: their coconut palm trees look young and they probably haven't reproduced, so they don't have any coconuts yet. As the chain resorts use the palm-tree as an essential structural element in the adaptation of the beach to tourism and to attract leisure money, the coconut itself will have to be to be phased out, or should be.

When the new generation of hotels like the Wyndham start to arrive, they should just bypass the fruit altogether—it can hit someone on the head and, what is worse, are a groundsmaintenance headache. If Wyndham's young palms don't make it through the next hurricane, maybe they should consider developing a crossbreed without the coconut, a visual reference like the palm-trees embroidered on the furniture. Perhaps they should have hired a landscape designer after all.

The words on their marketing brochure reveal much more than they realize about Vieques, the close relationship between the Navy and the Wyndham, and the future of the island:

There's a world of wonders to explore inside and out. Sun, sea, sky – this is where it all comes together in perfect harmony. Our relaxed style and attentive service will make you feel as if the whole island were created for your enjoyment.-Wyndham Martineau Bay Resort and Spa promotional brochure, 2003.

{ Part 2 }

Charming Devastation

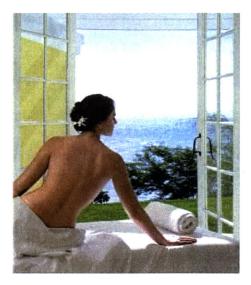


Humanity has been left to deal with the debris of a roadside picnic on some cosmic road. -From "Roadside Picnic"⁶⁶

⁶⁶ Strugatsky, A. and B. Strugatsky. "Roadside Picnic." (Russia, 1972) cited in Synessios, Natasha. "Stalker" screenplay in Tarkovsky, A. *Collected Screenplays*. Powell W. and N. Synessios, trans. p. 375. The story "Roadside Picnic" was the basis for the *Stalker* screenplay, written by the Stutgatsky's and Tarkovsky, A.

Encanto: Welcome to Paradise

The reclining nude in the Wyndham Martineau Bay marketing brochure has come a long way to visit the "island paradise." Perhaps she was outside, she visited the Wildlife Refuge, maybe she used the resort's pool area or the spa, and now she is inside her room. What does she do after she has arrived? She looks back outside, but not into the land of Vieques. She looks at an expanse of ocean beyond, with some land mass on the distant horizon, possibly the island of Culebra. It is somewhat reminiscent of the peninsula in the anonymous Sun Bay propaganda presented before, except that the hotel has fulfilled the anticipated conquest of the romanticized, deserted beach. However, the nude woman's glance is not straight out. One can see her in profile. In fact, she's almost turning around completely to stare right back at you, who gazes at the page. Maybe she sees the distant land, but only peripherally. Transported into this hotel room, it is only you, the viewer, who looks directly out to encounter emptiness.



• The making of emptiness

The principal attraction of Vieques' manufactured charm is the emptiness, a seduction for those who want to project into the void their fantasies and myths, and to leave behind the troubles or the monotony of everyday lives. This is basic to tourism. The emptiness manifests itself in all sorts of ways, all of them crucial to the different entities who exploit the resources, the history, and the people of Vieques. These levels and scales go from the toxic vegetables to John Todd's deserted beach to the un-fishable, polluted waters. Over the course of 60 years, the military's activities handicapped the dynamic processes of Vieques' ecosystems to leave these as a still-life that everyone may consume visually, and enjoy. However, the first step in this emptying-out was to remove people from that picture.

The United States government took charge of two-thirds of Vieques through two rounds of land acquisitions (1942-43, 1947-1950). Whether the military acquired these lands through compensation of their owners or through forced evictions is a misleading distinction. Reality is more nuanced because both statements are true. The military did pay something to the owners of the land; whether or not it was a fair price or if those owners had any other choice is a separate question.

The military officially states that they fairly purchased this property on Vieques. Rear Admiral Ernst Christensen, Jr. stated in Congress that: "It was bought at fair market value in the 1940s for a total of \$1.4 million."⁶⁷ Meanwhile, Cesar Ayala⁶⁸ has contested that the land transfer was only legal on paper and executed at first under the paranoia of another Pearl Harbor and then under the clouds of the Cold War. Ayala, along with various coauthors, posits that the process, as

^{°'} Christensen, Jr, R.A.E.E. October 4. 1994.

⁶⁸ Ayala has several articles on this subject. See Bibliography.

well as the distinction, deleted from vision and memory those who actually lived on the land with permission from plantation owners.

Land ownership was extremely concentrated on Vieques, and the property-less rural class lived as both workers and tenants on the same patches of land. The term used for these workertenants is *agredado*, as in an 'aggregate'; they exchanged their labor for the permission to live on the land and with the right to plant subsistence crops. The actual land owners themselves were largely absent from Vieques. The concentrated titles to the land in the possession of a few sugarproducing families made the transaction easy for the Navy. Rather than deal with thousands of *agregados*, they dealt with a handful of absentee owners. According to Ayala and Carro, the Navy mainly had to strong-arm two weak counterparts, since the sugar economy was battered at the time: the Eastern Sugar Associates and the Tío family. The subsequent pattern of land ownership under the Navy corresponded almost directly to the property boundaries of these sugar producers and some additional cattle farms. Ayala and Carro state that "it would seem necessary to distinguish between the process of expropriation as such, and a much wider process of evictions (*desalojos*) which affected not only landowners, but *agregados* and rural workers as well."⁶⁹

To this day, Vieques is a contested terrain because as much as it was the paradise of practice ranges for the military, it is also paradise lost in the collective memory of the population who lives there. Whilst life in the plantation era was devastating for the rural class, the forceful removal from their homes turned the emptiness left behind into mythical landscape. The problem gets compounded when different entities lay claims to the same emptiness, as happened after the

³⁷ Ayala and Carro, p. 19.

departure of the military in 2003; namely: the U.S. Department of the Interior, the community movement(s), and the forces of speculative development.

• devastation as seduction: Andrei Tarkovsky's Stalker and Vieques

Synopsis: <u>Stalker</u> as metaphor of the Inner Range and devastated landscapes

The film *Stalker* (1979) documents a journey. *Stalker*'s kind of encounter with the world, the journey, is different from tourism. It is about inviting experience, while tourism is a vicarious experience through a detached gaze. The journey is dangerous, while tourism should not be. The journey goes through places, while tourism just wants to arrive at places, be it a resort, a wilderness conservation area, a beach, and so on. The journey also leads into the self, while tourism promises to not threaten internal stability. What they have in common, then, is that they are both drawn in and driven by a charm.

In the film, two men—a Writer and a Professor, so it is said—go on a quest into a forbidden wasteland of uncertain origins, dubbed "the Zone." Led by a third man, a "Stalker," the quest promises to arrive at powers of personal fulfillment; it is the Stalker's obligation to anticipate harm on the treacherous route to the source, or "Room," that grants people's deepest wishes.

The movie begins with the lives of these characters inhabiting their own ordinary worlds, portrayed in grayscale, in a polluted, post-industrial town outside of the zone. In the background we see in different shots: nuclear plant cooling towers, soot clouds, waterways with sludge on their surface, and a general absence of vegetation. Then, under the threat of incarceration by the authorities, the three men sneak into a colorful place where wilderness has taken over the ruins of civilization. The film inscribes fantasy upon the generic post-industrial landscape produced by a purported rationalistic dominion of nature.

The approximately 15,000 acres on East Vieques that the military owned had a *Stalker*-esque name previous to the Navy's departure: The Inner Range (see Introduction). What is the Zone or the Inner Range, in either case, if not paradise? The desire to control up to the heavens and down to the center of the earth itself suggests celestial ambitions. The infinite three-dimensional perimeter lines that the military drew made this space a vacuum of curiosity, in both cases. More importantly, the emptiness of the void excavated by the military is left to be filled by travel fantasies, even of the Wyndham sort.

From the outset, *Stalker* delightfully leaves hundreds of questions unanswered or ambiguous. For instance, rumors abound about the origins of the Zone and its mysterious powers (military accident, alien attack, meteorite crash), but is the Zone also the cause of the town's post-apocalypse? Or, is this unfolding in a post-apocalyptic planet where the Zone is the only remnant of vegetation, or setting that vaguely incites notions of an original garden, or perhaps a re-conquest of the wild?

Andrei Tarkovsky's film *Stalker*⁷⁰ (see synopsis) resonates with Vieques and its

prohibited bombing range: a provocatively dangerous and magically empty landscape where humans feel a bit alien. In the context of this thesis, *Stalker* will help to reveal certain things about the reading of this devastated environment, but by no means everything that there is to learn from the place. Nevertheless, besides discussing the understanding of the devastation, how the landscape portrayed in the movie and the real devastated place work in the same way is as instruments for perpetuating existing power regimes.

⁷⁰ All quotes from *Stalker* come from Tarkovsky, A. *Collected Screenplays*. Powell W. and N. Synessios, trans.

The notion of an empty paradise emerges early in the film, when the delinquent trio enter the Zone. The characters come into the Zone on a diesel-powered carriage that rides on rails. It is a misty, foggy day inside the Zone. The Professor remarks: "It's so quiet," and the Stalker responds: "It's the quietest place on earth. There's nobody to make any noise." For the first time in the movie he is exhilarated, his eyes open wide, and he promises: "You'll soon see, it's amazingly beautiful here – bizarre!" It is striking that the Stalker is impressed by the absence of humans, even giddy. His blasé remarks alienate his own family and his town outside the Zone. His own daughter is a mutant victim of the Zone's mysterious pollution. He immediately emerges as a lonely figure: the emptiness within mirrors the emptiness around him. He's captivated by the solitude, yet this solitude is imposed by the very authority that persecutes him. He erases from his memory the town that existed in the Zone prior to its formation, and instead he gets excited by the vegetation that has covered the traces of existence. "There's no smell of flowers for some reason – or have I lost the scent?" he says. It was enough to see the flowers to think that the place is beautiful. Thus, he values the place for it's visual delights instead of savory, olfactory, or any other ones.

The next moment the Stalker goes off on a small exploration, leaving his two clients alone to talk. The Stalker's private moment is revelatory. To reassert his deep admiration for the vegetation of the Zone, he seems to imagine it like a liquid he can sink into. As if to become one with the weeds, he reclines his whole body with arms outstretched into the dense greenery. He visibly enjoys this strange and somewhat childish regression; he's completely in the moment. There he is, as if baptizing himself in the purity of a type of plant that only filled-in after everything was destroyed. Why is he communing with the weeds? We can find some clues in Vieques itself. The U.S. Fish and Wildlife Service, under the leadership of Refuge Manager Oscar Díaz, has gone to great lengths to explain what distinguishes the Vieques Refuge. In press releases and newspaper opinions, the refuge management constantly repeat that the area is known for a "subtropical dry forest."⁷¹ Their refuge website calls this subtropical dry forest "an excellent example," under a subheading called "Facts." Furthermore, under another category, "Wildlife," they mention that "the subtropical dry forest is one of the most endangered habitat types in the tropics and subtropics." In a separate newspaper op-ed piece, Díaz stated: "Vieques has one of the best sub-tropical dry forests in the Caribbean. It is home to at least four endangered plant species and 10 endangered animal species."

However, before 1941, this forest type was never dominant on Vieques. Roy O. Woodbury of the Agriculture Research Station with the University of Puerto Rico wrote in the 1972 Survey of Natural Resources that:

A large part of the island is in thorn scrub or woodland. This is for the most part a secondary succession after the original forest was cleared or put in pasture. The thorn trees are not grazed by cattle and soon take over unless cleared periodically.⁷²

⁷¹ USFWS. "Vieques National Wildlife Refuge Becomes Largest in the Caribbean." 2003.

⁷² EQB. p VII-12.



Oscar Díaz, Refuge manager, posing for the camera in the dry forest of Vieques.

Woodbury claimed in that report that "approximately eighty percent of the original vegetative cover (of Vieques) has been greatly modified by man."⁷³ It is known that agriculture dramatically altered the landscape of Vieques, but then the fallow fields were filled by a successional⁷⁴ forest that is now legitimized by federal agencies as primordial and "endangered," even though it is markedly different from the vegetation before agriculture. The vegetation

⁷³ EQB. p VII-12.

⁷⁴ Succession is a loaded term in Ecology. It generally means a simple change in dominant vegetation over time, but for some time science accepted the notion that after a secondary succession, the dominant plant community was a "climax" community. This fixed definition of plant communities has been widely discredited. Refer to Drury, Jr. W.H. Chapter 7, "Secondary Succession."

thoroughly homogenized the landscape in the absence of a forest management plan or agricultural production, which had itself greatly depleted the nutrients in the soil.

My own archival research demonstrates that in the 1850s the island was cultivated for all kinds of products. For example, in December of 1852, seven ships took a hundred and ten tons of wood to the Virgin Islands; meanwhile, other ships took fruits, beans, and even corn to places like Saint Thomas.⁷⁵ In the mid-1850s, correspondence between the authorities on Vieques and the Spanish crown show that several French agriculturalists wanted to lease land for sugar production, and forecasting the eventual domination of sugar over the soil of the island that already was taking place in other places.⁷⁶ Before sugar dominated, however, the island was already being deforested to profiteer from the wood itself, which was used in construction of vessels and buildings. The deforestation of the island is usually not discussed in relation to timber products, only sugar, by what I have seen.

This implies that before the mono-crop history there was a very diverse pattern of agricultural land uses. Along with the variety of crops there was a very different idea of nature than the one faced in the early 21st century.

Even the military's own internal reports shed light on the public mythography of the Fish and Wildlife Service:

A natural progression of vegetative types from coastal areas to higher elevations has been lost and present-day vegetation on the island is characteristic of the dry coastal zone vegetation of mainland Puerto Rico. Thorn scrub communities now constitute the dominant vegetation type on the island.⁷⁷

⁷⁵ Archivo General de Puerto Rico. Fondo Gobernadores Españoles. Caja 603.

⁷⁶ Archivo General de Puerto Rico. Fondo Gobernadores Españoles. Caja 602.

⁷⁷ US Army Corps of Engineers, p. 4-58.

The Stalker in the film does not realize that what he notices is empty at the core; the weeds are as far as he looks. Meanwhile, the Writer concurs with him: "It's surprisingly beautiful here. It's foggy, dark, there's nothing to be seen." The Writer, though, sees something completely different in paradise: nothing. Rather than noticing beauty in things, he sees past everything, and in a sense, he gauges the emptiness that the Stalker does not want to come to terms with. They both admire absences, but where one manages to find beauty in the visuals, the other catches the sublime character of the wasteland: empty, frightening, and beautiful .

When the Stalker comes back from his baptism in the weeds, he remarks again on the oddity of the flowers that grow without a scent. Something catches his attention to interrupt his state of exhilaration. He comes back to his wits; he is now aware again of the tricks the Zone can play. Maybe he heard something or saw something strange, but it can all be his nerves. Everyone's anxieties are heightened. The Writer cautiously asks: "Now, what could that have been?" and the Professor speculates that maybe there are people in the Zone after all. The Stalker puts no stock in such ideas. The Professor goes on: "Well, you know the story about how those tourists stopped the night here, apparently, when the Zone appeared?" And the Stalker replies: "No. There's nobody in the Zone, there can't be." The Writer points out the obvious: "But we're here, aren't we?" Without pursuing this question further, the Writer himself abruptly changes the subject to find out more about the Zone and what created it.

While the characters are about to move onto other subjects, the movie viewer is stuck with the oddity that remained in the air, which reveals various things about paradise. Like the tourists on Vieques, The Stalker does not see himself as a part of a process of commercial exchanges that strengthen the paradise construct. He buys the myths of the primordial vegetation; he especially seeks to deny that it ever was a place of everyday life in the past. For the Stalker, the awareness of a human presence cheapens the encounter that he had with the weeds and how he profits from the magical charms of the Zone. In the Zone, he can connect himself with his own idea of what nature is, and then get back to peddling the empty paradise to the downtrodden. Tourists idealize their activity as the most benign of land uses, as if they haven't been there at all. In fact, it is their presence that economically reinforces the prohibition of permanently occupying these tourist zones.

The Professor, on the other hand, recalls that it was someone's home and village in the past. In addition, the Writer, who has come to the Zone to recover his muse, seems to be aware that it is paradise because they asses it as such. He realizes that paradise comes with a measure of sacrifice for some people. Thus, he inquires into the issues of the Zone's origins.

The Professor does not respond with the answer the Writer searches for. The Writer is asking the Professor for his expert opinion about what caused or created the Zone, but the Professor just responds with general rumors that abound:

About a quarter century ago, apparently, a meteorite fell here, completely burnt the village down to the ground...All attempts to find the meteorite were, of course, unsuccessful...Then people here began to vanish. Those who came never went back. They finally concluded that this meteorite wasn't a meteorite at all...At first, they erected barbed wire, to protect the inquisitive. And it was then that the rumors began circulating, to the effect that somewhere in the Zone, there's a spot where wishes come true...Naturally, it was decided that the Zone should be protected, like the apple of your eye...Who knows what wishes people might conceive.

The problem remains in the air: what exactly happened to the people that occupied what became the Zone, and in the same vein, what happened to the *agregados*, the working poor, of Vieques? The persistence of myths about these two zones perpetuate the illegitimacy of inhabiting them. In Vieques, the low level of remediation clean-up proposed by the military in the areas they occupied vitally depends on to the persistence of myths such as these.

• the cooption of struggle to market paradise

Part of the answer to the question of what people did after the Vieques evictions is that the rural class, especially the men, turned to fishing. Many people left Vieques after the construction of the Navy's Mosquito Pier on the North coast of the island. That project provided some jobs for about two years after the first evictions. After 1943, the situation grew increasingly worse, especially in terms of jobs. Part of the population migrated out to neighboring islands including mainland Puerto Rico, St. Croix, and St. Thomas.

Anthropologist Katherine McCaffrey has researched and written about the identity of the fishermen of Vieques and according to her, the practice of fishing was more than survival in the midst of a difficult and sudden transition; it became a practice of resistance and defiance in the face of oppression.⁷⁸ It was a way of "making-do." But, what started as informal resistance to a common enemy—an enemy that just wanted them to leave the island completely⁷⁹—eventually mutated into an organized movement against that antagonist. The way of life of the fishermen often came into conflict with the military maneuvers because these destroyed their nets and progressively killed coral reefs vital to the sea harvest. So, they began to take direct action and engaged in fierce clashes on the high seas. These clashes quickly gained an aura of a David versus Goliath struggle, especially when viewed through the lens of press photographers.

While the fishermen appear to have been victorious in the battle to remove the military, the identity that was forged in this decades-long confrontation already appears to have been coopted for tourism profit. This premise becomes evident at places like the Wyndham Martineau Bay and the Esperanza Fishing Village. Esperanza, on the Vieques South coast, is the only other

⁷⁸ See McCaffrey, K, but especially. pp 62-64.

⁷⁹ Between 1958-1964, Secretary of Defense Robert McNamara conducted secret negotiations with the governor of Puerto Rico Luis Muñóz-Marín to remove every last civilian from Vieques and Culebra. Vélez-Rodríguez, E. p.15.

town on the island besides the Isabel II capital. There is a small boat landing and an unkempt, almost forgotten parking lot at one end of a long ocean boulevard. Presumably the fisherman use this area to launch their boats and perhaps to clean their catch, although I have never seen many of them around. The rest of the Esperanza Fishing Village is one two-story building after the other. They all seem to be American restaurants with names like "Bananas" or "Coconuts," and I am not translating from Spanish here. They all serve typical American fare: burgers and fries, beers, baseball on the television screens. The views from the *malecón*, or boardwalk, are spectacular, and the rents or mortgages in this area must correspond to the preciousness of the view, especially after the military departure. To complete this panorama, there are guest houses intermixed with the restaurants or on the second-floors. Taxi-vans come and go. Even the one-time pro-Navy Vieques Conservation and Historical Trust⁸⁰ has their headquarters on the boulevard.

Both the practice of fishing and the dry forest are types of by-products that are commodified as authentic or native to the place. For tourists, the charm of Vieques is all that which glosses over the emptiness left by the military and passes as original, like the Stalker's weeds. Amy Graves, a tourism reviewer in the *Boston Globe* even has "charming" in the title of her article: "Vieques: a charming Caribbean island."⁸¹ She says: "Locals fishing on a pier at sunset. Wild horses roaming nearly empty beaches. Family-run restaurants serving tapas and paella. If there's one island in the Caribbean that I hope never loses its authentic charms, it's

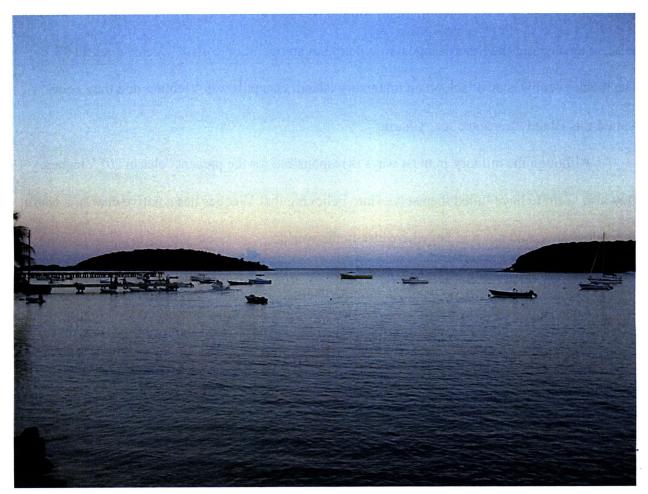
³⁰ The Trust was one North American-supported entity that for decades worked to protect areas like the bioluminescent bay, but not to take a stand against the military bombings and their effects on ecosystems. McCaffrey demonstrated through interviews that many North Americans ("winter birds") who purchased land in the civilian suburban areas between the two military zones and built vacation and retirement homes, hotels, and restaurants, such as those at Esperanza, perceived the Navy's land as undeveloped pristine wilderness, proving that pictorialization served its purpose. This privileged class acted upon their attachment to this landscape by joining the Navy League, a social group formed by the US Navy for propaganda and support. For instance, the Navy League sponsored a Sea Cadet program for island youth to earn the sympathies of their families. See K. McCaffrey, p.

[&]quot;Vieques, a charming Caribbean island." Graves, A.

Vieques." The fact that paella and tapas are not even part of the Puerto Rican cuisine questions whether anything, like the fishing village, is authentic about the Vieques charm.



The Esperanza Fishing Village.



Sunset on the Esperanza Fishing Village.

• The charm the Navy made and Wyndham wants to keep

There was a higher likelihood of an accident during the spring season, like the one that happened in April 1999, because this was the heaviest practice period year after year. Exactly eleven years to the day before the fateful bombing, the chief admiral of the Atlantic Fleet's Southern Command was quoted in the *El Mundo* newspaper. He explained how they had 40,000 soldiers throughout the Inner Range participating in an operation called "Ocean Venture 88." The mock event was an attack on an imaginary island, except it was Vieques, and they codenamed this island "Encanto," or "Charm."⁸²

Although the military in most ways is responsible for the present "charm" of Vieques, they also seem to have lulled themselves into believing that Vieques has a native charm, a charm they allegedly could not find anywhere else in the world:

This unique facility is the only location in the Atlantic where realistic multi-dimensional combat training can be conducted in a combined and coordinated manner. It is the only range which offers a live fire land target complex with day and night capability, an immediately adjacent large area of low traffic airspace, and deep water sea-space. Colocated are underwater and electronic warfare ranges, amphibious landing beaches and maneuver areas, a full service naval base and air station and interconnected range support facilities.⁸³

The description goes on later with:

Vieques also offers the opportunity for U.S. forces to train with Allied forces in combined naval exercises, enhancing our ability to operate with potential coalition partners. (...)Vieques stands alone in its ability to support senior commanders in evaluating and strengthening the readiness of weapons, systems, and most importantly, people.⁸⁴

"Unique," "the only," "stands alone." This is the point they made to the U.S. Congress

after the bomb drop that killed the civilian guard in 1999. A few years before those statements,

⁸² Calero, M.S. p 20.

⁸³ US Navy 1999, p. ii.

⁸⁴ US Navy 1999, p. ii.

Rear Admiral Christensen testified on Capitol Hill that "this facility is perhaps the best training facility in the world."⁸⁵ What the Navy seems to imply in their discourse is that they discovered the uniqueness of Vieques, and they therefore deserved to keep it.⁸⁶



"No trates tu salud a medias" or "Don't treat your health halfway." The image shows an advertisement mounted in the Vieques ferry for healthcare services at a Fajardo hospital.

⁸⁵ Christensen, Jr, R.A.E.E. October 4. 1994. Ironically, in 2004 the Navy said that the training they are receiving after leaving Vieques is "much, much better." –Kackzor, B. 3/16/2004.

³⁰ Jiménez, F. pp 61-75. The author has an interesting subchapter, "La niña de los ojos," on the matter of totalizing and cartographic readings of Vieques in the public discourse, specifically the association of landscape with femininity or geomorphology, to metaphorically recover it from the possessive male figure of the military.

If the military felt that way, then perhaps the tourist slips into the same sense of ownership. In the *Smithsonian* article, the author expresses a similar brand of seduction as the military does with the discoveries of Vieques:

By now we've glimpsed enough sugar-sand beaches and aquamarine views to know that if we're not careful, we may soon feel gripped by a certain sense of possibility that so many travelers have felt, a sense that this might be the sort of place that we could at last settle in, buy some property and feel like our lives have turned lucky.⁸⁷

A popular reference for journalists when they try to describe this charm is that Vieques has no fast-food franchises and no stoplights, nor shopping malls. "Not yet, anyway," says Reed Johnson in *The Los Angeles Times*.⁸⁸ The narrators omit something. For example, there are no hospitals on Vieques either, not even, until last year, a neo-natal unit. Ironically, for a population that has roughly a 25% higher cancer rate than San Juan's,⁸⁹ there is no hospital ward.

One attraction of Vieques before the Navy's departure and Wyndham's arrival was this slow pace of life without any need even for stoplights, its "sleepiness," a certain kind of backwardness that is a symptom of the lack of socioeconomic development sustained by the Navy's presence over 60 years. One author, Leigh Gallagher of *Forbes* magazine, a bit like Dr. Strangelove, even encouraged tourists to go before the shelling stopped, in an article sub headed with: "Forget the bombing. Vieques is one of the Caribbean's best-kept vacation secrets. For now." ⁹⁰ He is well aware of the challenge that the big hotel chains face in trying to maintain the slow pace and charm of Vieques. The Wyndham Martineau Bay shamelessly borrowed the "best-

^{*'} DuBow, S. p.78.

⁸⁸ Johnson, R.

⁸⁹ DuBow, S. p. 82 quoting epidemiologist Carmen Ortíz-Roque and GATP. p. 97.

Johnson, R. p. 1.

kept vacation secret" right out of the *Forbes* magazine article for their brochure,⁹¹ even though the article's author thinks that Vieques without the bombs is not worth visiting.

Wyndham has to embody competing ideals while striving to project authenticity at the Martineau Bay. On the one hand, it has to be recognizable as a global brand, and maybe that's why it reminds some of Boca Raton, Florida,⁹² or why they use the palm-tree. On the other hand, it has to have familiar origins in a fictionalized version of Vieques' French-Spanish colonial past that then must be linked in the mind with authenticity, more so than the structures of the slaves and the working class. The key to the success of this design is equating this charm with the nostalgia of a bygone past that never was. In other words, one must situate the origins of a certain kind of quaint primitiveness in the colonial "ancestry," and, in doing so, attribute its preservation, but not its making, to the military.

The international resort chains yet-to-arrive, like the pioneering Wyndham, will partly draw tourists with a sanitized representation of the colonial era pre-military. But besides attracting tourists, the real power of this charm is that it can also seduce the residents of the island by drawing a distinction between their "sleepy frontier life"⁹³ and the chaos of a metropolis such as San Juan, a bit like what this hotel owner illustrates:

I was just out of college, but I already felt a nostalgia for the simpler, sweeter Caribbean ways that were then—as now—eroding day by day and year by year. Vieques embodied the best of those times and that place: It was pristine, calm, a little bit forgotten—and a lot undervalued. -Roberto Cacho, co-proprietor of the Wyndham Martineau Bay.⁹⁴

⁹¹ Wyndham Martineau Bay Resort and Spa, October 2003 brochure, also accessible in .PDF format from wyndhammartineaubay.com.

⁹² Barrenche, R. p. D-5.

⁹³ DuBow, S. p 78.

⁹⁴ Frank, M. p 98.

The Wyndham is the harbinger of new design politics heretofore absent on Vieques, but ones that are familiar in other places. Here, the neocolonial artifice is also being used to help skip the confrontation with the military, finding a safe sphere in a past that never was that safe anyway for the average plantation worker or slave, who had to survive cholera epidemics, agriculture-pinching droughts, and hurricanes in rickety shacks. Of course, this amputation of the military out from the past must be a careful act of surgery because the Wyndham, and its future siblings, must take out the violent traces but leave the allusion to the military as preserver or protector untouched. What a tourist goes away with is the idea that the Wyndham blends into the background of a sweet era that never went away because the military defended it (in addition to the projection of tropical nature presented in Part I). With that in mind, the mandate that the tourism industry has, therefore, is to give perceived continuity to the preservation of nature and charm.

Martineau Bay is the name of a place on Vieques, as one might deduce. There is a Martineau Point and a Martineau Mount as well. But, the selection of this name does not seem to be solely convenience. Wyndham, after all, also operate the El Conquistador and Las Casitas hotels in Fajardo, neither one of which assume the name of their site. The Martineau name, and the *Architectural Digest* article confirms it, relates the hotel to the French presence on the island during the late-19th century, while it was under Spanish rule.

The Spanish settlers brought over Paso Fino horses, which today roam the land in large picturesque herds. The French built houses in what eventually became known as the plantation or colonial style: A hybrid vernacular, it showed the hand of many visiting mariners, the British, the Dutch, the French and the Spanish among them.⁹⁵

According to this version of history the Spanish ruled the island and brought horses, but it was the French who developed its architecture. While the Spanish can too easily be associated

⁹⁵ Frank, M. p.100.

with the extermination of the tainos, or the establishment of the slave-trade and the oppression of free workers on Vieques, the French fulfill the role of a more righteous counterpart for the modern tourist. The French, like the modern tourist, in fact played, and play, a part in the commercial transactions that maintain and empower colonialism. When it comes to Spanish architecture, the military fort or the lighthouse can be more comfortably attributed to them. The history that this architecture narrates is: the Spanish are the occupiers; the French, mere transitory visitors. The interior designer of the Wyndham, Dan Nelson, comments in the pages of *AD*:

It was easy to think of this fellow Martineau as a traveler, and an erudite one besides. And of course he had a good eye and would have brought together objects and pieces of furniture from different countries—as we have done in his spirits.⁹⁶

The article even errs in stating that the entire island was leased to the French for some time;⁹⁷ a mistake perhaps due to the confusing fact that the island's first ruler appointed by the Spanish Crown was a French agriculturalist, Teófilo Jaime José María LeGuillou, and the largest single owner of slaves on the island.⁹⁸ Martineau was one of many French sugar barons that came to do business under the aegis of the Spanish Crown, but the island was still a Spanish territory no matter how many Frenchmen did business there.

From the exteriors of the different buildings on the complex, it is hard to tell that the Wyndham makes any specific French references. The pitched standing-seam metal roofs and the insertion of a few wood lattice screens between square concrete piers vaguely evoke a colonial vocabulary. The resort has one main building for guest registration, dining, and entertaining.

⁹⁶ Frank, M. p. 112.

⁹⁷ "For many years Vieques, a Spanish possession, had been leased to the French." Frank, M. p. 100.

⁹⁸ GATP, p. 5. LeGuillou's surname is French, but his first and middle names are not. My only explanation at the moment for this is that possibly he assumed those names because of his associations with the Spanish. I know for a fact that Le Guillou used interpreters to translate correspondence that he sent to the Crown. See Archivo General de Puerto Rico, Fondo Gobernadores de Españoles, Caja 602 for examples of letters from LeGuillou to Spain.

This is the equivalent of the plantation house. "We wanted everyone to think: Was that building really there? Was it a plantation house they reused?"⁹⁹ In a brilliant sleigh-of-hand, the hotel's main entrance appears more "French" than any other part of the hotel, with several layers of elaborated wood screens and stained wooden doors. Meanwhile, the space where the tourists spend most time, the interior grounds facing the ocean, appears contrastingly modern, with sliding aluminum-and-glass doors and mostly bare of the French detailing.

156 Guest rooms and 20 suites are distributed into smaller villas scattered over the 46 acres of property. The material selection and lack of ornamentation, while somewhat betraying its French ancestry, reveals the economic drive of the owners and the reality of building a structure so close to the ocean in plain hurricane territory. The interiors, on the other hand, are the slate on which to inscribe the hotel's Frenchness.

In the Great House (...), Nelson mixed washed-pine ceilings with wrought ironchandeliers, sconces and lanterns copied from French models. Chairs, which Nelson designed and had fabricated in the Far East, disappear under sinamay (a kind of banana fiber) in the evening; china, also inspired by French designs, was "Caribbeanized" made cruder and more primitive—and manufactured in Mexico.¹⁰⁰

With this blatantly racist statement that slaps Vieques, Puerto Rico, the entire Caribbean and even Mexico with one swing, the magazine represents how the interiority of the hotel—both its divorce from the whole Caribbean beyond its wall and the literal interior of the building becomes a register of intermixed notions of that charming backwardness of Vieques. This is highly disorienting because of how the inside folds into itself an ideal of the outside; an exterior whose reality it simultaneously tries to cut off. The china, an intermediate state between resource

⁹⁹ Donald Evans, hotel architect in Frank, M. p 106.

¹⁰⁰ Frank, M. p. 112.

and its digestion, serves-up the desired stage that the hoteliers would like to keep Vieques at— "crude and primitive"—presented from the safety of this walled sanctum.

The Seduction of Prohibition

Moving through the Zone, a synopsis

The *Stalker* trio embarks upon the process to find the Room that grants people's deepest wishes; film viewers are invariably perplexed at first by the games that the Stalker plays with his two clients, like the Navy charmed by the false realization that they have discovered paradise. Perhaps even the Stalker has total faith in his own brand of snake oil. The Stalker is a cross between a dowser and a divinator. The basic premise behind his method is that straight lines paradoxically lead to sudden demise. Nothing is what it seems in the Zone. The only guarantee is that the surrounding context—everything in one's field of vision—will unpredictably change, maybe a bit reminiscent of the dire warnings about East Vieques that the Navy and the Fish and Wildlife Service have for the public. The Stalker always sends one of his two subjects ahead, and the rest of them follow. He keeps them submissive with promises that the Zone will punish them and that it demands respect. Deviations are dangerous.

The Stalker credits his teacher, the Porcupine, for his game method. In this game, the Stalker throws a sack with steel nuts inside. The Writer and the Professor have to walk to where the nuts land, as if anything outside of the radius of the throw is bound to shift; as if the sack either determined the way or it protected everything within the circumference of the throw. The Stalker, of course, does not want to reveal too much about his technique. After all, it is the method he earns a living with.

After much haggling, the Writer decides to challenge the Stalker's game. In a moment filled with heavy tension, the Writer turns towards the building where the Room purportedly is. He slowly approaches the building; he doubted the Stalker's warnings but he is obviously under a lot of fear and self-doubt himself as he moves along. Suddenly a voice yells: "stop!" His face is pale and filled with fright as he turns towards the other two. The Stalker asks the Professor: "Why did you stop him?" and the Professor says: "What?! I thought it was you..." Apparently the Zone has taken pity on him and spared his life. He returns to the other two. While the paranormal moment seems to meet the Stalker's dire warnings about the Zone, it simultaneously remains questionable because the outcome fails to match up to the Stalker's predictions of ultimate doom.

Soon after, the relationship between the Stalker and the Zone gets even more difficult to make sense of. They move through the mist and emerge from some kind of drainage tunnel. The screenplay suggests that they have been circumnavigating the Room the whole time. It might be meters away, but again, the direct route is the most dangerous of all. They find one of the old nuts that the Stalker's teacher left behind. It seems to mark some kind of bifurcating path of great peril.

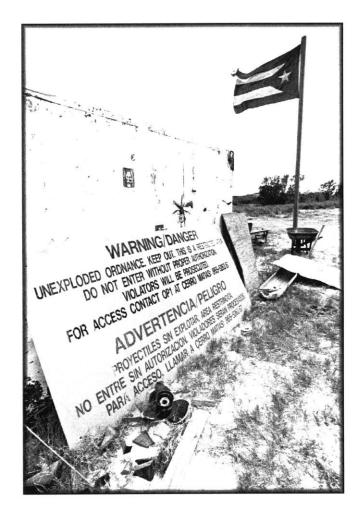
Throughout the whole film, the Professor has been carrying a rucksack. At this important juncture, the Stalker once again leaves the two men alone; ostensibly he tries to figure out where they will go next. In a few moments he is calling for them to join him again, but in this shuffle, the Professor says he has forgotten his rucksack. The Professor tells the others that he must retrieve it and they say that he will never see them again if he leaves. Furthermore, they tell the Professor that he can ask for anything he wants from the Room, like another rucksack. The Professor pretends to acquiesce to the pressures of the Stalker, but he sneaks-off as they move through the mist.

The Stalker assumes, and perhaps the viewer also does, that the Professor will never turn up again. As soon as they realize that the Professor is not with them, the Stalker pushes forwards because it would be too dangerous to wait, he claims. Low and behold, they re-emerge from the Zone's labyrinth to bump into the Professor once again, who sits in the exact spot where he'd left the rucksack. Are the Writer and the Professor just lucky in their defiance, or is the Zone not all it's cracked up to be? The Stalker rationalizes: "The Zone is infallible! Infallible! I was already thinking, to my eternal shame, that the Professor wasn't going to make it. But now I can see that the Zone likes you!" Once again Tarkovsky gives the viewer reason to believe and simultaneously not believe in the Zone. One cannot figure out how they came back to the same spot they left from, but then again, how come the Zone did not kill off the Professor?





Guiding a group of protestors into the forbidden zone.





• at the threshold of the Room

Professor wheels round, turning his back on his companions and shielding the phone. He quickly lifts the receiver and dials. A few long signals, and then a woman's voice: 'Hello?' PROFESSOR: The lab head, please. VOICE: One minute The Professor waits. He turns around to glance at his companions, and once more turns his back on them. A man's voice is heard: 'Hello?' PROFESSOR: I hope I have not disturbed you. (pause) MAN'S VOICE (dryly): How can I help?

*PROFESSOR: Just a few words. You hid it, and I found it. The old building, in the fourth bunker.*¹⁰¹

In this phone conversation between the Professor and one of his colleagues, what the

Professor claims that he found, and the viewer does not find out until later, is a nuclear bomb. He has been carrying it in his rucksack and in a few moments he will reveal the bomb to his companions when they all are at the Room's threshold. The Professor guarded his death wish closely throughout the whole movie while the other characters carelessly chatted away. While the Writer loudly proclaimed his reasons for visiting, the Professor was mum. He has come to the Room in order to finish it in a private vendetta.

Why does the Professor fear or despise the Zone and the Room so much that he would destroy it in a suicidal mission?

Tarkovsky's movie never gives this away. Ultimately, one can speculate on a few different reasons 'why.' These all can reveal the power beneath the meniscus of devastated places like the Zone or Vieques, and especially the former bombing range on East Vieques. The

¹⁰¹ Tarkovsky, A. p. 408.

mixture of respect, fear, and adoration for the mysterious zones exert unquantifiable influence on what happens with them in the future. Who will control these? Who profits and who loses?

When the Professor reveals his secret, he explains to the Writer and the Stalker that he and his other science colleagues, one of whom he talked to on the phone, decided that the Zone was a dangerous source of power for people like cultists, aspiring dictators, and such. It was a national threat. At some later point in time, his colleagues abandoned the idea of destroying it. They might have come to see the Zone as less dangerous than they previously thought or they came to fear the bomb more, so they got rid of it.

Where did the Professor find this bomb? "The boiler house, the fourth bunker," he says. One might assume that this bunker where the Professor found the bomb was somewhere outside of the Zone. Perhaps this is the most plausible of explanations. Nonetheless, the film viewer has not been in total visual command over the Professor throughout this cinematic time-space. The Professor went on a private excursion when he claimed that he had lost his rucksack. Was the 20 kiloton device hidden in the Zone the whole time?

Who is the Professor, then? Could he in fact be part of the rationalistic establishment that created the Zone? Is he afraid of the subversive potentials of the Zone? Is the state in danger from the nationalist prayer that an individual might elevate from this spot? The first answer to why the Professor would destroy the Zone, and the most direct, is that he is duped by the symbolic meaning of the Zone. He concludes that it is too dangerous for the stability of the nation.

A broad popular resistance elevated the death of David Sanes-Rodríguez at the observation post to a nationalist martyrdom that simultaneously consecrated the Eastern portion of Vieques, especially the bombing range. The dramatic encounter with the authorities who came to dismantle the camps and then the activists' jaunts into military territory, themselves guided by an elite circle of stalkers, added further meaning to the Eastern territory for *el pueblo puertorriqueño*.¹⁰² The consensus between Puerto Rican annexationists, separatists, the religious majority, and the local media was that the military would stop the bombings. This alliance managed to carve out a space where Puerto Rican cultural identity existed without threatening the stability of the state and its corporate allies, such as Wyndham.¹⁰³ In other words, *el pueblo* broadly adopted Vieques as a national cause that defiantly drew a line between the power of the master and the subjugate. The movement, which was in fact a coalition of Vieques and outside groups, leveraged national identity to resolve the conflict without threatening the larger colonial relationship. Therefore, the bombing range can be seen as a monument to a fantasy nation, but a monument that mollifies *el pueblo* while the colonial relationship continues.¹⁰⁴ In that sense, the colleagues of the Professor had nothing else to fear from the Zone and dismissed their concerns while he was not as savyy as they were.

The Second possibility: does the Professor conclude that the Zone is too much of a threat to the power of the military-industrial complex? Is he afraid that he and his colleagues set it in motion something and lost control of it, a dimension of *Stalker* that echoes our nuclearized world? It is his institution that could come out embarrassed from all of this. The safest route for him was to reassert the myth of the meteorite, as he did at the outset. Throughout the film, he

¹⁰² The term *el pueblo* does not have a direct translation into English. The term is very frequently used in Puerto Rico to indicate "the people" and comes with a populist ring to it. Its literal translation is "the town." It usually evokes the sum of the poor and working classes or a sector constantly struggling to eek power from the alliance of money and politics. It also evokes the native subjugated to the colonial power.

¹⁰³ One of the main points of Barreto's book *Vieques, the Navy, and Puerto Rican Politics*, as a sociolgical study, is to demonstrate how cultural identity is stronger than separatism from the United States and was used to mobilize against the Navy in Vieques.

¹⁰⁴ Refer to Duchesne, J. "Vieques. ¿La protesta espectacularizada?" *Indymedia Argentina* for an ample discussion on how a safe sphere for protest was formulated that would maintain capitalist sources of power, like the Church, intact or even stronger.

managed to avoid questions regarding his reasons for coming in, yet he seems to know the Zone quite well, as if he had been there before; as if, he had been a part of its creation.

The Professor knows much more about the Stalker himself than he lets on. As he reveals at one moment to the Writer, the Stalker worked for him in the lab. He knows that the Stalker's daughter is some kind of mutant victim of the Zone. The Writer doesn't have much more time to ask any further questions, but these are tiny cracks into a larger relationship between the Stalker and the Professor. In an incident where he lost his rucksack and was then able to find it again not only implies a rupture in the Stalker's powers, it also can imply that the Professor knows the terrain of the Zone very well. Perhaps this is why the Zone did not kill him.

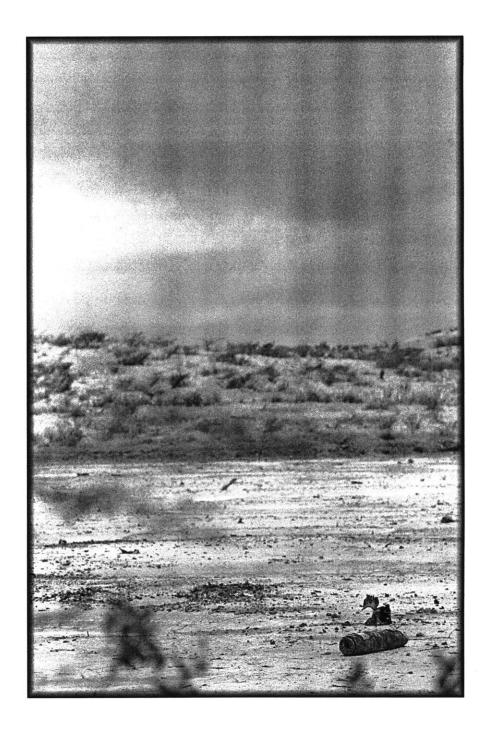
Just like the ambiguity of possible lost secrets in the Zone, Vieques has its share of compromising secrets and rumors that float in the public sphere. What kind of weapons have been left behind in the water or in bunkers? Since no one can legally visit the area, the rumors abound. The very carelessness with which the military handled Vieques can suggest they have lost track of their own secrets.

Therefore, this second possibility: the military-industrial complex, embodied in *Stalker* by the troubled Professor, continued to use Vieques even when global politics left behind Cold War logic. Why did the United States military stay for so long after the fall of communism? One explanation that has been proposed is that the military profiteered by renting Vieques to NATO allies and other countries for combined practices or for private weapons tests, a bit like Spain did with France in the sugar era.¹⁰⁵ To return to the bombing range scavenging for nationalist symbols, military secrets, or to even find the self can lead to an inadvertent encounter with all.

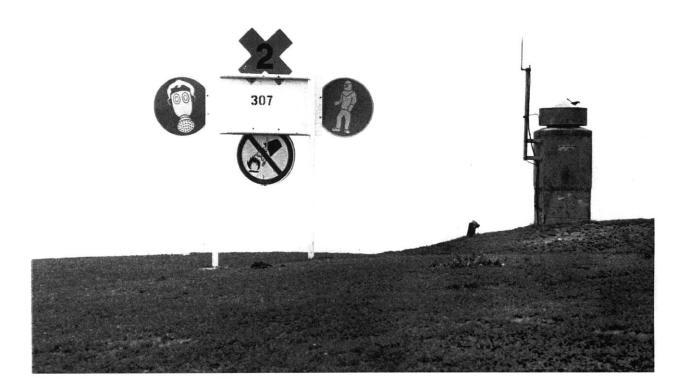
¹⁰⁵ Connoly, C. "One Stop Shopping." P. 6.

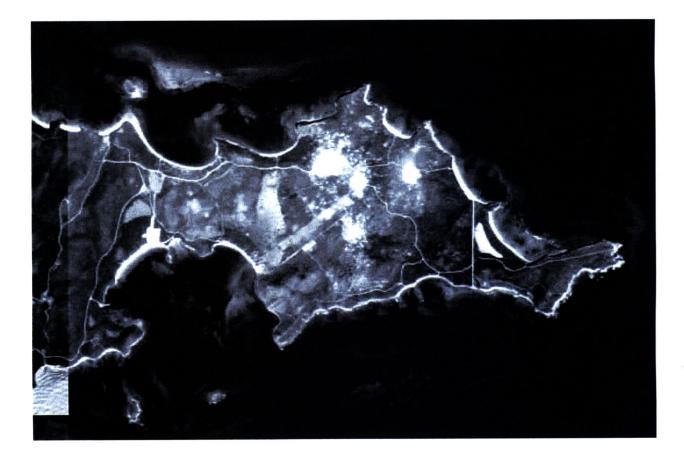
Finally, a third possibility to the enigmatic Professor is that he is none of these; in fact, he's very much their opposite. He is not a patriotic defender of state power and he is not a cynical member-protector of the military-industrial complex either. He knows something is wrong but he can't put his finger on it. He whimpers at the end: "Then I don't really understand a thing. Who really needs to come here?"

He senses something profoundly sinister about the place, while the Writer and the Stalker do not, or they choose to ignore it. In the end, the Writer convinces the Professor that the Room is empty; no purported wish has ever been verifiably granted. The Writer, to save his own life and perhaps apathetic to the sinister collusion at the Zone, convinces him to leave everything in place. They depart and when they do so, they yield to the relationship of power that originally drew them in.



Conclusion





Bombing Range



During my initial research, I was amazed to find in the Puerto Rico Institute of Culture National Archives a map from 1885 (before American colonization) labeled *Inspección de montes de la Isla de Puerto Rico: Plano del Monte del Estado, Cabeza del Este de la Isla de Vieques.* This map showed the bombing range before it ever was the bombing range. It was striking enough to see that the map reproduced the same Western boundary line that the military used for the live impact area of the bombing range. The title refers to the area as the Cabeza del Este (Eastern Head or Headlands). *Plano del Monte del Estado*, plus the fact that it was drawn by a public lands division of the Spanish Department of the Interior, implies that in 1885 the same boundaries of the bombing range were property of the Spanish crown, probably managed as a public forest.¹⁰⁶

There was something even more striking about it. The survey shows several water bodies on the Eastern tip. They are demarcated as *salitrales*, or salt flats; probably shallow bodies seasonally recharged by the ocean. The military emptied those same salt flats to place the ruins of tanks and airplanes as practice targets. I had heard narratives of how the military cut-off the flats from their ocean channel-ways to make them dry and useful for the target practice.¹⁰⁷ The 1972 Survey of Natural Resources also alludes to "land filling, drainage, silting-in, and cutting off access to tidal water" as a general symptom of Vieques under military administration.¹⁰⁸ Photographs taken after 1999 show landscapes that resemble the American deserts more than the Caribbean: flat cratered expanses with spent shells where nothing grows.

The Navy presumably took a living environment and removed all that gave it its dynamism. The protest movement then used the resulting landscape as a blank slate onto which they grafted monuments to a fantasy nation. The resistance demanded the military stop its activities there and that is laudable. They also inherited without question the literal and symbolic emptiness of the landscape; an emptiness that was slowly constructed over time by removing people, animals and vegetation, and by stopping most of the normal interactions between these. The movement succeeded in its goal to stop the bombings, yet the movement, like the Navy, is also gone. Without discounting the possibility that some day the movement might come back, they got their heroism and their monument, while *el pueblo viequense* at this point has nothing.

¹⁰⁶ The text on the map clearly supports that it was some kind of public property of Spain's Department of the Interior. When the United States began to use it as a bombing range, they did not change the Western boundary line of this property at all. Rather than careful military planning, lazy opportunism translated the area from public sphere to prohibited sphere. Mapoteca, Archivo General de Puerto Rico, Instituto de Cultura.

¹⁰⁷ One such narrative appears in the documentary film *Viéques:metáfora de Puerto Rico* by Ivonne M. Soto. ¹⁰⁸ EOB, p. IX-1.

What I have attempted to do in this thesis is to begin with what a tourist (I can count myself as having been in that role) sees in Vieques and where that tourist catalogs the people who live there. The place for them is nowhere, except perhaps as visual devices that add to the charm of the visit, like the prototypical fishermen. The concept of a place where people do not really belong helps the Navy to leave pollution behind without raising any eyebrows. This also proves invaluable to the tourism industry because it fulfills tourist fantasies of discovery.

This project is also about how easily we slip into interpreting a place as being static and then how the static fits our conceptions of the natural. We tend to perceive ourselves—humans as being the agents of harmful, destructive changes, neglecting how conservation can become human-induced stasis. At a place like Laguna Kiani, that stasis serves to perpetuate pollution and social underdevelopment.

Sometimes it is easier to perceive change in the overt clues of the built environment than the unbuilt environment. However, I have been trying to develop a case where there is no such distinction. The landscape of Vieques is also a built environment. I posited that the construction process of the Vieques landscape does not end with the vegetation. It only begins with the vegetation and continues with other media of communication, like the marketing brochures of the Wyndham, the anonymous flyer to stop the Sun Bay project, or the words of John Todd. These are representations of tropical nature as much as the palms also are. These things all pitch in to help exploit the idealization of the place. To what degree was the anti-Navy movement acting upon this very idealization? To what degree are they content to leave that idealization in place? The movement left and people still have the same problems they had before and during the Navy occupation: disenfranchisement, poverty, and disease. The idea of Vieques as a wilderness without people suggests that what was rescued was the native, and therefore the nation.

Finally, what do we see when we gaze at the empty wilderness? In the Wyndham Martineau Bay brochure, a nude woman became an element of the desired gaze that a person travels all the way to Vieques to get. The role of the reclining woman in between the eye and the infinite emptiness of the ocean is the same as the width of the paper she is printed on: flat. Perhaps we can compare what the Navy and tourism want for the fishermen to that woman. They want the *viequenses* to remain as paper figures that complete a desired picture. The people seen when we gaze at the wilderness are, at most, cutouts. These cutouts maybe have one other purpose besides fulfilling tourism desire: to numb us from the alienation of the emptiness. This is what W.G. Sebald refers to in the quote from *The Rings of Saturn* that I used at the opening of my thesis. The tourist seeks escape and freedom, but what if horror accompanies that freedom? This is a horror that is akin to staring into a mirror and nobody stares back.

{ Appendix }

I. Table: Summary of Bombing Range Pollution

II. Research

III. Map: Vieques National Wildlife Refuge

Flashpoint	Studies	Summary	Assessment	Conclusions
1. Heavy metals sampled in living animal tissue	Massol and Díaz, Casa Pueblo and UPR Mayagüez Biology Dept. 2000	High concentrations of copper, zinc, nickel, cobalt, and cadmium in crustaceans; measures crab populations in both AFWTF and civilian area.	10 to 20x biomagnifications for cadmium; 80x (20x in the civilian area) more cadmium than in typical sea food market varieties; exceeds FDA and WHO acceptable limits;	Typical heavy metals from bomb components become biomagnified to dangerous levels, even in civilian areas.
2. Heavy metals sampled in plant tissue	Massol and Díaz, Casa Pueblo and UPR Mayagüez Biology Dept. 2000	Compared heavy metal concentration in plant tissue in AFWTF to other dry forests in PR.	Higher levels of lead, cobalt, and manganese than the control population.	Signals presence of heavy metals on the range that can move through the food chain. *authors' note: this study could indicate that some dry forest species' could be used for phytoremediation.
3. Heavy metals sampled in consumable vegetables	Massol and Díaz, Casa Pueblo and UPR Mayagüez Biology 2001	Typical diet staples in civilian area studied for heavy metal presence	Lead and cadmium identified in pumpkin, peas, pineapple, yucca	Recommend moratorium on consuming certain locally-cultivated vegetables
4. Underwater marine pollution	Dr. James Porter, University of Georgia, commissioned by PR Governor, 1999 (GATP report 2001 states that final report has been kept confidential; what is known comes from a preliminary memo)	Shrapnel found embedded in coral reef craters (Navy claimed it was hurricane damage) around Alcatraz rock. Unexploded ordnance carpets ocean bottom. Two sunken ships found with over 1,100 55-gallon drums	Requires further study; extreme danger due to unexploded weapons; possible solid and liquid waste inside the drums.	Bombing practices, even with dummy bombs, can destroy the drums and release further pollution into waters. Could be a serious regional problem.
5. Radioactive pollution	Jiménez, 2000	Navy denied use of uranium-tipped bullets; then retracted the denial and admitted to firing 263 bullets on one occasion. Author found radioactivity "spikes" around several targets.	Several bullets have pierced through targets and penetrated soil layer 6-8." Radiation measures seem to indicate that radioactive material has been carried by down slope water flows	NA
6. Drinking water pollution (authors' note: measured wells	EPA 1999-2000, but assessed by community activists: "EPA	Primary pollutant 2- ethyhexyl found in 1999 in 3 wells (violates Clean Water	EPA has not responded to Freedom of Information Act	2-ethyhexyl is a known carcinogen found in plastic explosives and the

I. Table: Summary of Bombing Range Pollution (GATP, 2001)

were outside bombing range)	claimed first samples with 2- ethylhexyl were polluted in lab, but neglected to test for this compound in 2000."	Act) and secondary pollutants (steel, manganese) found in more	request for access to information on the samples taken. Did not test for 2- ethyhexyl in 2000.	Navy's plastic tubing parts.
7. Soil contamination and sediments on bombing range	PIP, 1999 Servicios Técnicos y Científicos, Inc. 2000	Presence of high levels of 11 heavy metals in high quantities. The second study corroborates that high levels of heavy metals map directly to impact zones or locations where water travels.	Chromium and Arsenic at 1,000% higher levels than deemed acceptable by EPA.	The metals found seem to correspond to those that come from explosives, propulsion chemicals, bullets, napalm, chaff, and flares.

II. Research

Author's Note: This section provides background on the theoretical foundation and research materials used for the thesis. It has been adapted from the original thesis proposal.

As I prepared my thesis proposal, the San Juan metropolitan region, where I stayed and researched for most of December 2003 to January 2004, had just finished swimming out of some of the worst flooding in possibly over thirty years; an entirely preventable quagmire, if only natural systems had been better addressed in urban design and civil engineering. At the same time, I recently found in the newspaper that the national Conservation Trust will begin a program of educational guided walks through protected lands (outside the San Juan area) providing, and I am quoting a spokesperson for the Trust, a "direct encounter with nature," ¹⁰⁹ implying that we city-dwellers do not have such encounters on a daily basis. But, weren't the biblical floods in the city *also* 'direct encounters with nature'?

At the core of this study, first of all, are the predicaments that we get ourselves into based on how we construct nature, how we see ourselves within that perception, who is shaping it and how they are shaping it, and what is to be gained by doing so. Nonetheless, this is not an anthropological and sociological study. Perhaps it is influenced by such disciplines, but this project studies landscape as a product of such ideas of nature, combined with ecosystem processes, and global politics.

Second of all, the construction of the past at the service of current politics and the politics of memory enter into the way wilderness is gazed at in the present, and one occurrence of intense manipulation of the past is the remediation of the devastated landscapes at former military staging areas, such as Vieques; places where "nature" is represented as both being in a state of ruin, and unspoiled save for a few instances of damage. There are many others all over the world. W.G. Sebald visits the Uks Cold War testing Area, Orford Ness, in *The Rings of Saturn*. In San Francisco, there is a National Park Service project ¹¹⁰ where a reconstructed tidal marsh and heroic decommissioned World War II military air base coexist in a postmodernist montage of the past. It is impossible because the U.S. military drained the marsh back in the early 20th century for the air fields and military installations.

Third of all, I am interested in the phenomenon of the dominant discourses on the future of Vieques that are out there and in various ways purport to save it either from itself (the consumer desires of the *viequenses*, who seem to want to be normal 21st century citizens that eat at KFC and McDonalds and drive SUV's to the multiplex: Vieques, with over 9,000 people, has not a single movie theatre or fast food restaurant), or to save it from the forces of Hyatt, Wyndham, Mariott, etc. Therefore, the disciplines of planning, sustainable development, and rational scientific remediation map out what a devastated environment is and how to fix it. I wanted to bring my own description of what a devastated landscape is like, and for that I turned to literature and cinema. I specifically looked at W.G. Sebald's *The Rings of Saturn* and Andrei Tarkovsky's *Stalker* for clues on how we might better understand the strategies of policing and remediating by all the parties involved in this Vieques situation. It follows that perhaps we can find better ways of both remediating and remembering what happened, but also creating a

 ¹⁰⁹ Pabón, R.H.. "Recorrido educativo por las Cabezas de San Juan." *El Nuevo Día*. December 20, 2003, p.80.
¹¹⁰ See Rieder, K. entire chapter.

process where every individual can freely interpret what drove the military out of Vieques and what should take its place.

These intentions began to take shape in an advanced seminar on nature in cities with Prof. Anne Whiston Spirn. The final essay for that class became an opportunity of taking initial steps into my thesis. The seminar was a crucial part in developing an intellectual approach to the issue of nature or perhaps a plurality of natures, as Raymond Williams proposes,¹¹¹ and the visions which they serve, be they aristocratic, imperial, corporate, or what-have-you.

Other texts that became influential in that semester were William Cronon's introduction in *Uncommon Ground*, where he traces the origins of the concept of conservation areas to the ideas of the sublime, and Candace Slater's "Amazonia as Edenic Narrative" in the same volume, who reveals how many of us tend to complacently view nature as static, obscuring and suppressing the intertwined human cultures that live and reinvent nature continually. I owe to M. Christine Boyer the positioning of postmodern constructs, including landscapes, as potentially pictorializations that prevent us from seeing a social order that we can reform.¹¹²

As to Vieques, Amílcar Antonio Barreto and Katherine McCaffrey have published excellent, sweeping texts on the social and cultural experiences of Vieques, covering many important subjects for my study: the role of the fishermen, the "winter bird" phenomenon, etc. Félix Jiménez recently published a book on the gaze of the press at Vieques and all its inscribed fantasies and omissions. Carlos Domínguez Cristobal, in his book *Panorama Histórico Forestal de Puerto Rico*, provides some data on the deforestation of Vieques in the late 19th century. Juan Duchesne wrote a crucial essay in 2001 on the performance of the protest, which then becomes a reassertion of some traditional power structures.

This thesis' reading of landscape also owes a lot to Sharon Zukin, who defines *landscape* as "an ensemble of material and social practices and their symbolic representation"¹¹³ and goes on to state:

The concept of landscape has recently emerged from a long period of reification to become a potent tool of cultural analysis. It connotes a contentious, compromised product of society. It also embodies a point of view. As the opposition with vernacular implies, powerful institutions have a preeminent capacity to impose their view on the landscape—weakening, reshaping, and displacing the view from the vernacular.¹¹⁴

The research for this project started in August of 2003, when I would have been researching the prison-industrial complex in California. Instead, I found out how similar and interrelated the prison-industrial complex is to its military cousin and perhaps how they both represent a geographical reorganization of capital after the Cold War. Scheduled to leave for California, I fell ill with dengue fever, typical in Puerto Rico in that season. Once I was feeling better, I joined a group of art students and their professors, Jennifer Allora and Guillermo Calzadilla, who were working in Vieques. They have given me privileged access to the images and materials that they have collected over the past year or so (interviews, maps, scientific studies of the pollution in Vieques, etc.)

Williams, R. "Ideas of Nature."

¹¹² Boyer, M.C. p. 3.

¹¹³ Zukin, S. p. 16.

¹¹⁴ Zukin, S. p. 16.

I familiarized myself with the island and the Institute of Culture's archives and museum at the Conde de Mirasol Fort on that trip. As a group, we interviewed assistant mayor and former high school history professor Victor Emeric, Gladys Rivera from the *Alianza de Mujeres* (Women's Alliance), and Nilda Medina-Rabin, one of the leaders and civil disobedients from the *Grupo Pro-Rescate y Desarrollo* (Pro-Rescue and Development Group). That visit came at the heels of the Navy's departure from Vieques and the last clashes with the Navy.

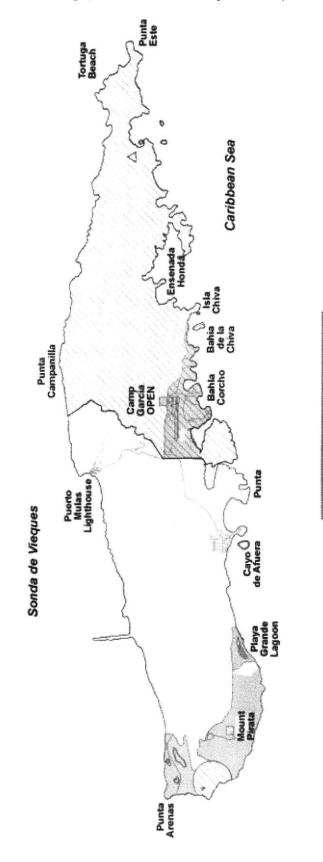
The experience from that trip, intermixed with my then-cursory knowledge of the issues from following them in the press while living in the United States during the 1999-2003 civil disobedience period (I grew up in Puerto Rico), served as the springboard to initiate an inquiry in an advanced seminar on nature in cities with Prof. Anne Whiston Spirn.

Over the winter period 2003-04, I met with an environmental historian from the National Park Service, Carlos Domínguez-Cristobal, whom has researched and written extensively about Puerto Rico's environmental history. He personally furnished me with several materials and his own notes that study the environmental history of Vieques, as well as various leads to work on. I researched in the libraries of the Agricultural Research Station at the Botanical Gardens of the University of Puerto Rico (UPR), the Puerto Rican Collection at the UPR, and I then visited the Puerto Rico Institute of Culture Central Archive in San Juan, where I reviewed Spanish documents from the 1820's onward, when Spain first colonized Vieques. With limited time I was only able to seriously review some key documents, such as letters from the then-governor of Vieques reporting conditions on the island to the king, and documents relating to the shipping of goods in and out of the island, as well as some early maps. The review of these archive materials can luckily be supplemented with the meticulous notes that Domínguez-Cristobal has given me, since he has spent countless more hours than I have looking at the same collections. The Archive also has a film library where I viewed two documentaries on Vieques (The Battle of Vieques and Viegues: metáfora de Puerto Rico). I have also acquired a copy of Cuando lo pequeño se hace grande ("when that which is small becomes huge"), a documentary of the removal of civil disobedients from the bombing range in 2001.

On my trip to Vieques, I spent two days at the Conde Mirasol Fort and Museum with director and community leader Robert Rabin. I was denied permission to see the restricted areas by the U.S. Department of Fish and Wildlife, citing the danger posed by unexploded ordnance by manager Oscar Díaz. At the fort I viewed all the photographs in the collections, including the 1942 Catanzaro Collection that documents the Navy's arrival in Vieques, and the press photographs of the resistance movement spanning from the 1950's to 2003. I sifted through a lot of material that is not catalogued, and focused on letters from military leaders to Congress, environmental assessments that had to be provided to the Environmental Quality Board of Puerto Rico before operations (highly theatrical), crucial news clippings, and documents collected there that came from the National Archives in Madrid.

In addition, I have been in contact via email, phone calls, or in person with different professionals who are working with the matters of Vieques: José Rivera Santana, planner (and now hired to create the development plan for Vieques) and coordinator of the *Grupo de Apoyo Técnico y Profesional* (GATP: the group responsible for drafting sustainability guidelines); Dr Arturo Massol Deyá, chemist at UPR Mayagüez campus; Dr Carlos Laó Vélez of the GATP; and Yarissa Martínez, affairs coordinator of the Puerto Rico Environmental Quality Board for Vieques. These planners and scientists have provided generous support with opinions on studies done and providing me with documents such as the sustainability guidelines prepared in 2001 by the GATP.





III. Map (US Fish and Wildlife Service)

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{ Bibliography }

Ayala, César. "Del latifundio azucarero al latifundio militar: las expropiaciones de la marina en la década del cuarenta." *Revista de Ciencias Sociales*. University of Puerto Rico. January 10, 2001. Pp. 1-33.

. "From Sugar Plantations to Military Bases: the U.S. Navy's Expropriations in Vieques, Puerto Rico, 1940-45" Centro--Journal of the CUNY Center for Puerto Rican Studies. 13(1) (Spring 2001). Pp. 22-44.

Ayala, César and Viviana Carro. "Expropriations and Displacement of Civilians in Vieques. 1940-1950." *Puerto Rico: Political Persecution and the Quest for Human Rights.* New York: SUNY Press, 2004.

Barrenche, Raúl A. "After the Bombs, Retrofitting Paradise." The New York Times. August 28, 2003. pp. D1, D5.

Barreto, Amílcar Antonio. Vieques, the Navy, and Puerto Rican Politics. University Press of Florida, 2002.

Black, Kenneth E., Regional Director U.S. Department of the Interior, Fish and Wildlife Service, letter to Mr. C.D. Moore Jr, P.E., Director, Installation Planning Division, Department of the Navy, Norfolk, Virginia. May 16, 1980. Collection Conde de Mirasol Fort, Institute of Culture, Vieques, Puerto Rico.

Boyer, M. Christine. *The City of Collective Memory: It's Historical Imagery and Architectural Entertainments.* Cambridge: MIT Press, 1994.

Calero, María Soledad. "Aquello fue un ataque de película." El Mundo. April, 19, 1988. p. 20.

Christensen, Jr., Rear Admiral Ernest E. Statement before the Insular and International Affairs Subcommittee of the House Committee on Natural Resources. H.R. 3831, October 4, 1994.

Clinton, William J. "Directive to the Secretary of Defense, Director, Office of Management and Budget." January 31, 2000.

Clinton, William J. to Amy Goodman. "Exclusive interview with Bill Clinton." *Democracy Now!* Pacifica Radio. November 8, 2000.

Colón, Jorge L. "Sinópsis sobre la situación ambiental de Vieques." Colegío de Químicos de Puerto Rico. August 8, 2001. Digital presentation materials provided by the author.

Commonwealth Department Natural and Environmental Resources. *Guide to Identify Common Wetlands Plants in the Caribbean Area: Puerto Rico and the U.S. Virgin Islands.* San Juan: Editorial Universidad de Puerto Rico. 2001.

Commander U.S. Second Fleet and Commander U.S. Marine Corps Forces Atlantic. "The National Security Need for Vieques: A Study prepared for The Secretary of the Navy" July 15, 1999.

Connelly, Charles. "Navy Web Page Ad." The Vieques Times. Volume 126, April 1999, p. 6.

. Vieques Times. Volume 150, September 2003. p. 4 citing American General W.W. Harris.

Cronon, William. "The Trouble with Wilderness; or, Getting Back the Wrong Nature." Uncommon Ground: Toward Reinventing Nature. William Cronon, ed. New York: W.W. Norton, 1995.

Deleuze, Gilles and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Brian Massumi, trans. Minneapolis: University of Minnesota Press, 1987. (1980 French)

Delfín, Marty Gerard. "Lawsuit filed by RFK against Navy dismissed." *The San Juan Star.* December 18, 2003. P. 10.

Díaz, Oscar. "Preserving the National Vieques Wildlife Refuge." The San Juan Star. August 18, 2003, p. 29.

Domínguez-Cristobal, Carlos. Personal Interview. January 14, 2004.

. Panorama histórico forestal de Puerto Rico. San Juan: Editorial Universidad de Puerto Rico, 2000.

Drury Jr., W.H. "Secondary Succession." *Chance and Change: Ecology for Conservationists*. University of California Press, 1998.

DuBow, Shane. "Vieques on the Verge." Smithsonian. January 2004. PP. 76-83.

Duchesne, Juan. "Vieques. ¿La protesta espectacularizada?" Published on the web at rebelion.org and *Indymedia* Argentina. July 14, 2001.

Edelstein, Michael R. Contaminated Communities: Coping with Residential Toxic Exposure (Second Edition). Cambridge: Westview Press, 2004.

EFE Press Agency newswire. "Incluyen en prioridades a Vieques y Culebra." December 4, 2003.

EFE Press Agency newswire. "Activista de Vieques, condenado a 18 meses de cárcel." December 19, 2003.

Emeric, Victor. Personal Interview. August 22, 2003.

Endi.com (*El Nuevo Día Interactivo*), "Propuesta para los terrenos del oeste de Vieques," the Puerto Rico Planning Board.

Enjuto-Rangel, Cecilia. "Todos con Vieques." Revista Domingo. August 1, 1999. p. 10.

, "La Historia tras la verja." Revista Domingo. August 1, 1999. p. 10.

Environmental Quality Board (EQB), Commonwealth of Puerto Rico. *Vieques 1972: Survey of the Natural Resources*. Various Authors.

Fernández-Colón, José. "Health chief says cancer on rise in Vieques." The San Juan Star. October 5, 2003. p. 8

Férnandez-Colón, José. "Solicita la Marina la reducción de las áreas a limpiar." December 15, 2003. P. 24.

Férnandez-Colón, José. "Casi imposible el lograr una limpieza completa." January 6, 2004. P. 25.

Franco Malavé, Frances. "Arte centrado en Vieques." El Nuevo Día. December 19, 2003. P. 86.

Frank, Michael. "Wyndham Martineau Bay." Architectural Digest. Date unknown. Pp. 98-112.

Fideicomiso de Conservación de Puerto Rico. 100 Millones de Años de Historia: la Naturaleza de la Isla de Vieques. Exhibition Manuscript

Foster, David R. "Conservation Lessons & Challenges from Ecological History." Forest History Today. Fall 2000.

Frank, Michael. "Wyndham Martineau Bay." Architectural Digest.

Gallagher, Leigh. "Damn the Torpedoes." Forbes. March 4, 2002.

García-Canclini, Néstor. *Consumers and Citizens: Globalization and Multicultural Conflicts.* George Yúdice, trans. Minneapolis: University of Minnesota Press, 2001.

. *Hybrid Cultures: Strategies for entering and Leaving Modernity*. Christopher L. Chiappari and Silvia L. López, trans. Minneapolis: University of Minnesota Press, 1995 (1990 Spanish ed.)

García-Muñiz, Humberto and Jorge Rodríguez-Beruff, coords. "Fronteras en Conflicto: Guerra contra las drogas, militarización, y democracia en el Caribe, Puerto Rico y Vieques," *Cuadernos de Paz.* Number 1. San Juan: Red Caribeña de Geopolítica, 1999.

García-Muñiz, Humberto and Gloria Vega-Rodríguez. La Ayuda Militar como Negocio: Estados Unidos y el Caribe. San Juan: Ediciones Callejón, 2002.

Gordon, William G., Assistant Administrator for Fisheries, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, to Commander E.P. Fucile, Naval Facilities Engineering Command, Atlantic Division, Corps of Engineers, Department of the Navy. December 18, 1981. Norfolk, Virginia. Collection Conde de Mirasol Fort, Institute of Culture, Vieques, Puerto Rico.

., Assistant Administrator for Fisheries, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, to Commander E.P. Fucile, Naval Facilities Engineering Command, Atlantic Division, Corps of Engineers, Department of the Navy. August 20, 1982. Norfolk, Virginia. Collection Conde de Mirasol Fort, Institute of Culture, Vieques, Puerto Rico.

Graves, Amy. "Vieques, a Charming Caribbean Island." Boston Globe. December 9, 2001.

Grupo de Apoyo Técnico y Profesional (GATP). *Guías para el Desarrollo Sustentable de Vieques*. Self-published, widely circulated among the Vieques community and activists, 2001.

Hallowell, Christopher. "Living Machines That Make Water Out of Sewage." Time. March 22, 1999.

Hayden, Dolores. The Power of Place: Urban Landscapes as Public History. Cambridge: MIT Press, 1995.

Herrera, Fernando. Impacto Ambiental a causa de la disposición de desperdicios peligrosos en Vieques. UMET-TOSC, Universidad de Puerto Rico-Arecibo. June 2001.

Hutchings, T.R. "The Establishment of Trees on Contaminated Land." *Arboricultural Journal*. Vol. 26. UK: AB Academic Publishers, 2002. Pp. 359-376.

Huyssen, Andreas. Present Pasts: Urban Palimpsests and the Politics of Memory. Stanford: Stanford University Press, 2003.

Jarzombek, Mark. "Money, Molecules, and Design." *Thresholds*. Year? (available at http://architecture.mit.edu/thresholds/contents20.htm)

Jarzombek, Mark. "Sustainability, Architecture, and Nature: Between Fuzzy Systems and Wicked Problems" *Thresholds 26.* MIT Department of Architecture, Spring 2003. pp. 54-56.

Jiménez, Félix. Vieques y la prensa: el idilio fragmentado. San Juan: Editorial Plaza Mayor, 2001.

Johnson, Reed. "Forays on Vieques." Los Angeles Times. January 25, 2004.

Kirkwood, Niall (ed.). Manufactured Sites: Rethinking the Post-Industrial Landscape. New York: Spon Press, 2001.

Little, Elbert L., José Marrero, and Frank H. Wadsworth. Árboles comúnes de Puerto Rico y las Islas Vírgenes. San Juan: Editorial Universidad de Puerto Rico, 2001.

López-Cabán, Cynthia. "A Vieques Estudios Técnicos, Inc." El Nuevo Día. January 9, 2004. P. 18.

Massol-Deyá, Arturo and Elba Diaz. Ciencia y Ecologia: Vieques en Crisis Ambiental. Publicaciones Casa Pueblo, 2nd Ed. Puerto Rico; 2001.

_____. "Toxic Metals in the Vegetation of the Civil Zone of Vieques." Publicaciones Casa Pueblo and University of Puerto Rico. January 10, 2001.

McCaffrey, Katherine T. Military Power and Popular Protest: The U.S. Navy in Vieques, Puerto Rico. New Jersey: Rutgers University Press, 2002.

McLane, Daisann. "A Quiet Isle With Occassional Rumblings." March 9, 2003.

Meyn, M. and J. Rodriguez. "El aparato militar norteamericano en Puerto Rico." *Casa de Las Americas*. November-December, XXI, n. 123. Havana, Cuba, 1980. Pp. 1-15.

Miller, Judith, General Counsel, Department of Defense to Hon. Floyd D. Spence, Committee on National Security, US House of Representatives, August 1995.

Nazario, Zydnia. The Battle of Vieques. 1986.

Pabón, Rolando Hugo. "Recorrido educativo por las cabezas de San Juan." *El Nuevo Día*. December 20, 2003. P. 80.

Pérez-Riera, Mariem. Cuando lo pequeño se hace grande. Maramara Films. 2001.

Pérez-Viera, Edgardo, ed. Victoria de un Pueblo: Crónica del Grito de Vieques. Puerto Rico: Editorial Cultural, 2002.

Rabin, Robert. Personal Interview, January 21, 2004.

Raskin, I., and B.D. Ensley (eds.) Phytoremediation of Toxic Metals. New York: John Wiley & Sons, 2000.

Rieder, Kirt. "Crissy Field: Tidal Marsh Restoration and Form." *Manufactured Sites: Rethinking the Post-Industrial Landscape*. Niall Kirkwood, ed. New York: Spon Press, 2001.

Rivera, Gladys. August 22, 2003. Interview by the author.

Roldán-Soto, Camile. "Segura' la gestión en pro de Vieques." El Nuevo Día. January 8, 2004. P. 16.

Romero-Barceló, Carlos and J. F. Goodrich. "Memorandum of Understanding Regarding the Island of Vieques." 1983.

Rust, Jon. "EPA pressured to release long-overdue comments on Vieques cleanup plans." September 15, 2003. P. 4.

. "EPA to discuss cleanup with Vieques community." The San Juan Star. October 5, 2003. pp. 4, 8.

Sebald, W. G. The Rings of Saturn. Michael Hulse, trans. London: The Harvill Press, 1998. (1995 German).

Servicios Científicos y Técnicos, Inc. "Impactos de las actividades de la Marina en Vieques." November, 2001.

Slater, Candace. "Amazonia as Edenic Narrative." Uncommon Ground: Toward Reinventing Nature. William Cronon, ed. New York: W.W. Norton, 1995.

Soto, Ivonne María (dir) and Yolanda Velasco Sárraga (prod.). Viéques: metáfora de Puerto Rico. 2001.

Spirn, Anne Whiston. The Language of Landscape. New Haven: Yale University Press, 1998.

Tarkovsky, Andrei. William Powell and Natasha Synessios, Trans. Collected Screenplays. London: Faber and Faber, 1999.

. Stalker. 1979.

Trías Monge, José. Puerto Rico: The Trials of the Oldest Colony in the World. New Haven: Yale University Press, 1997.

Todd, John. "A Golden Opportunity for Vieques to be Green." The New York Times. Editorial: July 26, 2003.

Torres Gotay, Benjamín. "Exigencias por Vieques." El Nuevo Día. November 19, 2003. p. 13.

. "17 vertederos tóxicos en las tierras entregadas." El Nuevo Día. May 18, 2001.

U.S. Army Corps of Engineers, Mobile District with Technical Assistance from Tetra Tech Inc. Environmental Assessment for the Relocation of Special Operations Command, South and Selected U.S. Army South Elements from the Republic of Panama to U.S. Naval Station Roosevelt Roads, Puerto Rico and Other Locations. U.S. Army South and Special Operations Command South, December 1998.

U.S. Department of Commerce, National Marine Fisheries Service. *Endangered Species Act Biological Opinion – Section 7 Consultation.*

U.S. Fish and Wildlife Service. "Vieques National Wildlife Refuge Welcomes the Public to the Eastern end of the Island." Press Release. April 30, 2003.

Vélez-Rodríguez, Evelyn. Plan Drácula: Negociaciones secretas entre Luis Muñoz Marín y la Marina. Río Piedras: Editorial Edil, 2002.

Wiens, John A. "Central Concepts and Issues of Landscape Ecology." *Applying Landscape Ecology in Biological Conservation.* Kevin J. Gutzwiller, ed. New York: Springer, 2002.

Virilio, Paul. Polizzotti, M., trans. Popular Defenses & Ecological Struggles. New York: Semiotexte, 1978.

Williams, Raymond. "Ideas of Nature." Problems of Materialism and Culture. New York: Verso, 1980.

. *Keywords: A Vocabulary of Culture and Society*. New York: Oxford University Press, 1985. Revised Edition.

Wyndham Martineau Bay Resort and Spa, October 2003 brochure, also accessible in .PDF format from wyndhammartineaubay.com.

Zukin Sharon. Landscapes of Power: from Detroit to Disney World. Oxford: University of California Press, 1991.