A Capstone Project Report by **Ariana Merlino**
Candidate, Master of Advanced Studies
**Center for Marine Biodiversity and Conservation**
Scripps Institution of Oceanography
University of California at San Diego
Submitted for Approval on June 8, 2011
Artists Meet the Scientists

The Tijuana Estuary and Beyond

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Sad News about the Tijuana Estuary…

Just as I am preparing to go to press and the project is complete, Oscar Romo informed me this morning (as I was getting his signature approving this paper) that the Tijuana Estuary Visitor’s Center will be severely cutting its hours to only weekends. Some Estuary staff will likely be losing their jobs, though we know not how many. The successful docent program is at risk. There has been talk of park closure, though that appears off the table for now. This is a time of crisis in our Golden State. Our proud university system is getting hit hard, our parks are closing, and our spirits are wilting. Please consider what you might do to keep these treasures from being cannibalized. Perhaps you might offer to pay more taxes and ask your friends, neighbors and colleagues to do the same. Or at least not vote for the next charlatan who promises nothing but “fiscal reform” and a lower vehicle license fee…
So Many to Thank!!

It is important for me to say that this Capstone would never have been possible were it not for the enthusiastic support and guidance of a large number of people. Through my life, I have been a very independent DIY kind of woman. Part of the wonder of this project for me was in learning to go to others for help, more than I ever have. I would like to thank my capstone advisory committee: **Stuart Sandin, Kristin Evans** and **Oscar Romo**. They were intensely supportive, and without them I don’t know that I would have been able to pull this project off. I would also like to thank my entire cohort who each have their own incredible qualities and talents that I draw on regularly for inspiration, and in particular **Ali Redman, Melissa Yuen, Carolina Behe, Alexis Rife** and **Dominique Cano-Stocco**. The entire CMBC family – **Jane, Penny, Phaedra, Dick, Sarah** – you are all treasures. Thank you. Also, I owe a debt of gratitude to all of the participating artists and scientists – they are personally listed in the body of this report. **Phil Zerofski** along with **Ali, Zach and Karen**, ensured that we had our kelp holdfast for the workshop. **Mary Beebe**, director of UCSD’s Stuart Collection gets props for helping me find artists. **Brad Werner** not only served on the panel, but helped in so many other ways, including videoing the workshop and introducing me to **Emily Hicks**, who was also an incredible support throughout much of the project and produced a few wonderful pieces for it. **Patricia** and **Dr. Mike McCoy** were a true inspiration. I thank them for telling me part of their story of protecting the Estuary for generations to come, for doing the same, and I also thank them for their help and support with this project. The Tijuana Estuary Visitor center staff were also incredibly accommodating and I particularly wish to thank Oscar Romo’s assistant **Ana Eguiarte** for her help and patience leading up to the workshop. Finally, I thank my mom, **Sheila Merlino** – for her help with the workshop, the shows, procuring easels, making sangria, participating as an artist, putting up with my shenanigans and sometimes testy ways, and just being an all around great and supportive mom. In addition to the fact that I would not be here without her, I also don’t know how I would have made it through this project without her.
My Capstone Advisory Committee

Dr. Stuart Sandin
(with Jasper)

Ariana Merlino (2011)

Kristin Evans
(3rd from left in white with Charina, Eric, me, and Levi)

Dr. Oscar Romo
(with Patricia McCoy)
In Memoriam

I also cannot go without mentioning a dear friend to all of us in the CMBC and greater SIO family. Toward the end of the Spring Quarter, we lost a powerful communicator and conservation advocate, a blossoming scientist and an all around wonderful person – known to his parents and now to us as The Great Timothy Ray. We all miss him.
The following pages describe how and why I brought together 6 scientists, over 20 artists and a kelp holdfast in order to generate a body of estuarine related artwork for public showing. The project is called, Artists Meet the Scientists – The Tijuana Estuary and Beyond. In the Appendices you will find all of the wonderful art and the artists who made the work.

Personal Project Goals

With this project, I have endeavored to help open the dialogue between the art community and the marine conservation science community and then to encourage artists to create work that reflects that dialogue and to share it with the community at large. My personal goals for this project were three fold: 1) To help me develop my skills working across natural and social sciences and humanities disciplines in addressing marine conservation matters. 2) To deepen my understanding of the importance of watersheds, wetlands and estuaries and how those systems function in concert with adjacent coastal zones. 3) To reach a personal understanding about a number of concepts, problems and potential solutions that many decades of work related to this natural system have not, in more traditional forms, quite resolved or robustly communicated to the public.

Community Impact Objective

My greater hope for this project is to help to bridge the gap between scientists and policy/planning professionals and communities, especially where it comes to matters marine conservation. Art has proven itself a successful means of communication between communities throughout human existence. I would like for this project to help develop art as another means by which complex environmental matters can be communicated, and perhaps even begun to be resolved. I am interesting in helping to expand the reach of marine conservation concepts through art and in that way to utilize art as an agent of personal, social and political change. And simply to introduce the local and regional community to a place that they might otherwise not have heard of. Because I believe that to know this system is to appreciate it, and perhaps even to love it as many I have met over the past few months do.

Why Artists Should Meet Scientists

After 10 years working in the energy and transportation policy and regulation field, and with the benefit of an academic background in international affairs, I decided to apply for the Marine Biodiversity and Conservation program at SIO. I did so because I wanted to play a role in helping marine conservation-focused scientists to communicate their findings and knowledge to policy makers and other communities outside of the science world. Through a combination of program-related experiences that I had during the summer and fall, I realized that the communication toolbox for marine conservation science could use some new tools. The two most poignant experiences that I believe led to the Capstone that I developed were
a course held at Birch Aquarium entitled Communicating Science to Informal Audiences, and a set of films that our summer class produced.

I am neither a scientist, nor an artist, but have dipped my toes into both worlds enough to believe that each has something to offer the other and that connections between these disciplines have the potential to result in work and new conversations that will extend the reach of dialogue about marine science and conservation into new communities. Through this dialogue I hope to spark an interest in acting upon those concepts in both personal, social and political ways.

I suspect that we can all think of a work of art that has had a profound influence on us in some way. Art has proven itself successful at conveying powerful concepts and emotions. The power of art can be profound as can the influence of science. Works of art have helped to move people to act and think differently than they did before. They have done so for matters as grave as war, as they have for natural resource conservation and preservation.

Enter the Tijuana Estuary

![Aerial View of the Tijuana Estuary](photo courtesy of trvea.org)

How, you might ask, did I choose the Tijuana Estuary as the focal point of this project? Well, it is simply really. Through the Marine Biodiversity and Conservation program at SIO,
I was introduced to a set of amazing people who work in this magical place in Imperial Beach. The story of the Estuary today, and how it has changed even over recent decades, is an intriguing one. Especially for someone such as myself with an interest in international and trans-border issues in concert with a deep concern for environmental well-being, the Estuary is a natural fit. When one visits the different locations that are accessible to the public and begins to have conversations with those who work in that system, one can’t help but develop an appreciation for how much there is below the surface. This is a system that is at once fragile and resilient, dependent upon human intervention yet suffering under it. It offers us hope for adaptation in the times of a changing climate to come, but only if we nurture it.

I saw a challenge in this system as well. The social and political challenges are so obvious, that the science of the system can easily be lost on the communities who surround it. I decided to strive to highlight the science of estuarine systems and their associated coastal zones, while being well aware that sometimes it is difficult to parse the social from the natural science. I felt that in order to see one’s way clear to working through the very difficult human problems that the system faces, it is critical to understand from a scientific perspective how it works, and how that affects our natural world.
There are a few very cool things about this system: In two words – connectivity and resilience. If you like birds, and I do, it’s got ‘em. They live in it, they travel through it on their international adventures, they birth and raise their young there. Some of them are endangered, others threatened, all of them precious and worthy of the sanctuary that is the Tijuana Estuary.
Interesting and even endangered plants? Plants that provide important ecosystem functions, and those that are endemic to salt water marsh habitat? Yes, those too.

The Estuary has features that filter the murky water that runs through it, and uses the nutrients in that water to support itself (but not too many nutrients please.) It is an estuarine system that, despite its problems and checkered past, is fairly well intact. It is on the border – and makes connection of the societal and natural communities on either side so evident, despite attempts at ever more robust physical and political barriers. It is a jewel that everyone who lives within 100 miles of it should take great pride in, and yet too few of us know it.
Here are some of the current problems the Estuary and the ¾ of its associated watershed which lies in Mexico faces: Too many nutrients – you know, sewage. Lots of tires, shoes, medical waste. It all travels through and into the system. Human expansion – we call that “encroachment.” Military activity. And so on.

And for solutions: The protection of the system that Mike and Patricia McCoy ensured decades ago and continue to support and foster. The work of the super-dedicated staff at the Estuary and Border Field State Park – such as Oscar Romo, Jeff Crooks, Brian Collins, Kristen Goodrich. Restoration projects – involving both the removal of invasive plants and replanting of natives.

The part of Oscar Romo’s work that I find especially magnetic is his concentration on very practical solutions that help to turn problems, such as old tires, into solutions, such as sediment retaining structures. The work and attention of researchers at SDSU, USD, SIO, including Paul Dayton, Lisa Levin and Theresa and Drew Talley have played an important role in improving the health of the system.

An Impossible Project

When I talk with people about this project, they tend to want to know about how it came together, in addition to being interested in the overall concept and the estuarine theme. I would like to tell you that I had some grand scheme for identifying the scientists and artists who would participate, but the truth is, this was a very by-the-skin-of-my-teeth project. That
made it a lot of fun, and also at times stressful, but mainly for my advisory committee – who basically said, you are going to do what, by when? You need to do X like today!

While I searched for my panel and artists, I took steps to learn from as many people who know about this and similar systems with whom I was able to arrange meetings. I also reviewed references that helped enhance my understanding of the system and how it has historically been managed.

So here’s how it went – sometime at the beginning of last quarter, I decided upon my project concept. I started talking to people about it. I let them know that I was looking for both artists and scientists to participate. I wanted to put on a workshop that would generate enough pieces of art work that I could build into a couple of decent showings. I was seeking both scientists and artists simultaneously. Mary Beebe, director of UCSD’s Stuart Collection gave me a big head start in connecting with artists. At the same time, I was meeting with any local scientists who were expert in Estuarine and adjacent systems and with whom I could get a meeting. In addition to learning through meetings, I got to know the Tijuana Estuary through site visits and reading. I also had many in person and phone meetings with interested artists. I was endeavoring to have cross-border representation in both the artist and scientist groups. In fact, I made a trip to Tijuana to meet with some contacts Oscar Romo had set me up with in order to attempt to get artists who reside in Mexico.

I met with a number of scientists in and asked them to help me 1) understand estuarine and related systems, 2) discuss the veracity of and help develop this project and 3) find and recruit scientists who would participate in the project.

One of my goals was to put together a panel of people with science and policy backgrounds, and a cross-border perspective, who were familiar with the system that encompasses the Tijuana River Estuary, and associated watershed and coastal zone. I did this and then worked with the panelists to develop 10 to 20 minute presentations and hands on activities for a group of over 20 (primarily visual) artists during a one day workshop.

The three areas I asked the science panel to cover during the workshop to cover were 1) the area’s ecology/ecosystem/species, 2) the problems this system faces [environmental, social, political...], and 3) practiced and potential solutions for these problems. After the formal presentations, I planned to then have informal smaller group sessions for the artists to work with the science and policy presenters and with one another. I envisioned this as being the time during which the artists would begin to develop concepts for art works that they would then spend the next several weeks creating. I made myself available for conversations with the artists while they were creating their works and asked some of the panelists who were able to do the same. My goal was to have the participating artists utilize the concepts that they picked up during the workshop, and perhaps in later interactions with the panelists, in order to create works of art that would be shown in one or two shows in the San Diego-Tijuana area. I planned to arrange for at least one showing of the work before the Capstone Symposium with perhaps more to follow.

In order to give the artists enough time (well not really) to complete the work, I needed to hold the workshop in the first two to three weeks of this quarter. That meant a lot of planning in advance during the previous quarter. I spent a lot of time in meetings. I had a
great time getting to know a lot of scientists and artists whom I would not otherwise have had the opportunity to meet. I used the “snowball” method of gathering participating and consulting artists and scientists.

After causing panic to at least two of my advisors, and with the help of many kind and supportive people, I managed to attract over 20 artists and 6 scientists, along with a Kelp Holdfast to a workshop held at the Tijuana Estuary Visitor’s Center on Saturday, April 16th. (by the way – a holdfast, as I learned during the summer course, is the part of the kelp that anchors it to the ocean floor and in which many cool critters reside – see Appendices for a photo of ours – and by the way thank you Ali, Phil, Zach and Karen for that.) I was relieved and grateful that so many were willing to give up most of a Saturday to participate in an experience of which we were all unsure how it would go and what we would get out of it. It went well, or at least that’s what I hear from many of the participants.

The workshop consisted of the following: first a history of the Estuary with Patricia McCoy and then a guided walk through part of it by Brian Collins, followed by a morning filled with photographically imbued presentations from three of the scientists (Octavio Aburto, Jeff Crooks, Brian Collins) that were designed to help the artists understand the system, and others that serve similar functions, the creatures and plants that reside there, and how these systems are important to us and the systems to which they are connected. Ed Parnell and Ali helped the artists experience the wonder of the kelp holdfast, that I mentioned earlier, and were encouraged to consider the importance of kelp ecology and how our coastal systems are connected to the Estuary and like systems. We had lunch, and then spent of a couple of hours in the afternoon listening to presentations from Brad Werner and Oscar Romo about the problems facing the system and actual and potential solutions to those problems. We needed a fun activity that would help make connections between the workshop participants, and so I asked one of the artists – Elizabeth Chaney – to lead us in a few minutes of kite making.

It was my intention to then transition into smaller discussion groups – with at least one scientist in each. The artists were to start developing the concepts for their work during this time. It was a long day, and people were tired and difficult to keep inside and in groups – so I decided to go with the flow and simply walked around to the different groups that had organized themselves and find out what people were thinking both about the workshop and about work that might result from it. I had originally thought that only artists who had committed to doing work in the time frame required for a show prior to the end of the quarter would participate in the workshop. However, I ended up inviting any artists who were interested in attending as I thought that the workshop might help stimulate future work and that their presence would make the workshop experience a more robust one for all of us. As I say, it was a long day, and for that reason and I suspect others, many of the scientists left before the afternoon dialogue. To those artists who were craving more interaction with the science panel, I made offers of individual meetings and some took place.

About a week subsequent to the workshop, I asked the artists who had attended which of them would be willing and able to produce work for a show or set of shows to take place before the end of the quarter. That would give them between 6 and 7 weeks to complete their work. Ten artists agreed. Those ten artists, plus one, attended a dinner that I hosted at a midpoint between the workshop and the time I was hoping to get their work. We talked
about the work that they planned, the work that some of them had done, their reactions to the workshop, and my ideas for showing their work.

We held two showings of the work. The first took place on May 25th at SIO's Martin Johnson House. The second and expanded showing was given at Art Around Adams on June 4th. The SIO showing brought in about 50 people mainly from the greater SIO community. At Art Around Adams, about 500 people came through and many really spent quality time with the art. I was able to personally speak with at least 50 of those people over the course of the 8 hour day. Many of the visitors were very moved by the work. In the appendices, you can view the art work and some of the attendees. I believe that the showings were successful for two primary reasons - 1) they helped to showcase possibilities of interaction between art and science and 2) they demonstrated that art really can be used as a messenger of marine conservation and science.

Please Indulge a Bit of Preaching to the Choir

I have a few closing thoughts that have come to mind through this project. Marine conservation science (as with any conservation science) is at its core about people. Artists deal in people. For most, their art is meant to connect with people. I believe that scientists have something to gain and to learn from that. Through this program, and this project, I have found that the number of scientists who are willing to step outside of their (your) comfort zone is too few. Far too few considering the gravity of some of the problems that we are facing. I have been lucky enough to be able to work with a number of those few through this Master's program and this project. If we care about these systems, these organisms, these people – then we all have to be willing to take a risk. If you don’t like publicly communicating outside of science circles – then find someone whom you can communicate with, who does. And when you look for someone, consider an artist.
Appendices

Hi! Welcome to the Tijuana Estuary!
Appendix A – The Workshop

Can you spot the invasive species?

Melissa Yuen (2011)
Workshop Program
Artists Meet the Scientists: Tijuana Estuary and Beyond
Saturday April 16th Workshop – 9:30 am to 5:00 pm
At the Tijuana Estuary Visitor Center*

{8:30 – Maria Teresa with photos,
9 or ? – Ali with Holdfast}

9:30 -10 Meet and Greet and Introductions (TJ Estuary Amphitheatre – Follow Signs and Walk through Visitor Center)

10 -11 History of the Tijuana Estuary and Walk

{A Few Words from Me}

{Welcome to Estuary – Oscar Romo}

10-10:30 History of Tijuana Estuary with Patricia McCoy
(TJ Estuary Amphitheatre)

10:30-11 Estuary Walk
(This will be a walk on planks/paths, not a hike, but comfortable shoes are a good idea. Just in case, bring a rain jacket/umbrella, the weather has been a bit “unpredictable” of late.)

11:05 -12:45 Ecology/System/Species Panel
(Large Meeting Room – Signs and Organizer Will Lead You)

Moderator’s Introduction - Ariana Merlino [SIO/UCSD – Center for Marine Biodiversity and Conservation] (5-10 min)

{Thank you to Oscar Romo, Estuary Staff, Brad Werner, All of the Artists, especially Elizabeth Chaney}

Goal of Project

Dates for Show – Last Week in May or First in April

Quick Intro to the Day’s Events

Marco “Octavio” Abruto-Oropeza [Scripps Institution of Oceanography {SIO}]
Ecosystem Services of Estuarine Systems (including Mangroves) (10-15)

Artistic Interlude (2-5)

Jeff Crooks [Tijuana Estuary]
System Connectivity (10-15)
Artistic Interlude (2-5)

Q&A / Dialogue (5)

**Brian Collins** [Tijuana Estuary]
A Birds Eye View (10-15)

Artistic Interlude (2-5)

Q&A / Dialogue (5)

**Ed Parnell** [SIO]
Coastal Zone - Kelp Ecology – “Show and Tell” Kelp Holdfast (15 - with Hands On Into Lunch)

12:45 – 1:30 Lunch Provided – Veg Friendly
(Participants please bring plates, cups and utensils if you remember, to cut down on waste.)

1:30 - 1:45 Dialogue/Q&A (Large Meeting Room)

{My hope for the afternoon, and in particular the small group sessions.}

1:45 - 3:00 Problems and Solutions (Large Meeting Room)
Moderator’s Introduction - Ariana Merlino (10)

{See notes: Inside the system, outside the system, both necessary, Oscar changing from within system, Brad seeking change without, though also working from within}

Brad Werner [SIO]
Regional Framework (15-20)

Oscar Romo [Tijuana Estuary and UCSD]
Site Specific Problems and Solutions in Practice (15-20)

Papalote Presentation and Small Group Activity with Elizabeth Chaney [UCSD Visual Arts] (15-20)

Break

3:15 - 4:15 Artist Small Group Discussions with Scientists (artists leading this section and developing concepts for artwork) (Large Meeting Room)

4:20 - 5:00 Artists “Share Out” Ideas Generated by Small Group Discussions (Large Meeting Room)
*Appreciation is due to the sponsor of this workshop - Tijuana Estuary’s Watershed Coordination group.

**Artists (and scientists for that matter), please bring any sketch pads, art supplies, cameras, notebooks and the like, that will help you to start thinking about and developing concepts for your work.

***If you think to bring the cardboard insert for a paper towel roll, please bring it for this activity. Favorite scissors would also be helpful.

Brian Collins Talks Estuary with Artists and Scientists

Melissa Yuen (2011)
Octavio Aburto explains Ecosystem Services

Dr. Parnell, Ali, the Artists and the Kelp Holdfast

And the Holdfast
Appendix B – The Artists and Their Work

Francisco Buelna (2011)
Mosaico acerca de la dualidad y los contrastes

Enrique Fuentes (2011)
Artista’s Statement

Experiencia en el Estero del Río Tijuana
El estero del río Tijuana brinda un descanso al paisaje, alrededor de el observamos como la megalópolis, la zona Tijuana-San Diego, consume los escenarios naturales. Las aves con su canto, purifican la contaminación sonora producida por el tráfico intenso que tiene esta zona. A pesar del desarrollo urbano que acosa al estero, todavía se puede percibir su carácter agreste, la vegetación no es igual a las típicas palmeras que se ven en las calles californianas, es un jardín botánico fronterizo.

En México algunas reservas o áreas naturales, cuentan con protección legal y reglas a seguir, pero muchas veces se respetan solo en papel, la falta de vigilancia o señalización hacen difícil su cuidado. Por lo que fotógrafos de naturaleza, cazadores o turistas, transitan de acuerdo a su conveniencia. Por mi condición de ciudadano transfronterizo, conozco las reglas de California e imaginaba que habría restricciones, no me equivoque.

Los senderos bien delimitados y señalados, te ayudan a recorrer gran parte del Estero, sin embargo, como fotógrafo te sientes frustrado de no poder transitar por donde sea, pero la sensibilidad por el medio ambiente te hace entender que es la única manera de mantener sano al ecosistema. En este sentido, atribuyó que la fauna se comporte diferente, mas tranquila. Las aves se muestran menos nerviosas a diferencia de las que podemos observar en el Estero de Punta Banda en Ensenada, que son disturbadas todo el tiempo por motos o
vehículos, que transitan cerca del humedal y en consecuencia con la presencia del cualquier persona se ponen nerviosas.

Como fotógrafo te preocupas por las condiciones de la luz y que clase de equipo llevar, la historia en éste caso es diferente. Ensenada esta a 70 millas de la frontera aproximadamente, hay que pasar por retenes militares, manejar hasta Tijuana, hacer fila y responder algunas preguntas al oficial de migración. Cuando te preguntan - ¿A dónde van? - las respuestas pueden ser infinitas, como ir de compras o al aeropuerto, en éste caso fue algo distinto: el Estero del Río Tijuana. El oficial no entendía, entonces contesté - We’re going to the Border Field Park Reserve y contestó que no sabía donde que era ese lugar.

El Estero del Río Tijuana, no solo en el nombre evidencia su origen, las vistas del desarrollo caótico de Tijuana que se tienen desde él o los grupos norteños que amenizan los restaurantes en Playas de Tijuana y se escuchan hasta el Estero, dejan en claro su procedencia. Es parte de la frontera y no lo es, es una zona de transición cultural por un lado y biológica por otro.

*Planes de desarrollo*

![Imagen de un escenario costero]

Francisco Buelna (2011)
Artist's Statement and Description of Work

Four Paintings Exhibited at Art Around Adams 2011
D. Emily Hicks

“Estuary”
The Tijuana Estuary brings together a mixture of salt water and fresh water to form a unique ecosystem. We can also speak of cultural estuaries, in which different ethnicities and religions are brought together. In the painting “Estuary,” there is a rectangle in the middle of the painting that suggests water. If the viewer looks closely, the image of the Tijuana Estuary will emerge. It is surrounded by various faces and figures that look vaguely Mediterranean/Portuguese/Middle Eastern/North African/other than English. Some have dark hair. They are organized in a variety of groupings or assemblages. These faces haunt me and remind me of my own mixed ancestry (European, indigenous and Free Persons of Color). My maternal forbears are Sephardic and Muslim. They are Wicocomico, Cherokee,
English, Scots-Irish, Spanish and Portuguese. They have been called Atlantic Creoles. They are Melungeon; they have crossed borders and borders have crossed them. One was forced to migrate inside national boundaries on The Trail of Tears. I lived as a Chicanized Anglo until a decade ago, when I discovered my Melungeon ancestry; since that time, I have struggled to assimilate this new information about my identity. Many believe that border art began in the mid-1990s with InSite. In fact, the Border Art Workshop/Taller de Arte Fronterizo and Las Comadres were doing border art in the mid-1980s. I was a member of both of these art collectives. In her MA thesis (2011), the Iranian art theorist Sara Solaimani discusses border art in relation to three categories of Henri Lefebvre in his book *The Production of Space*: the perceived, the conceived and the lived. I have lived in the Mexico-U.S border region most of my life. I was married at the fence on the beach in Border Field State Park. In the early 1990s, I was a transborder subject; I lived in Tijuana and crossed to work in the U.S. Later, I lived in the U.S and crossed to teach at the UABC (Universidad Autonoma de Baja California). For the last three years, I have been collaborating with Scripps geomorphologist B.T. Werner (IGPP) on research in which we are using a complexity science approach to analyze the Mexico-US border as a system.

It is useful to look at border art within a larger context of related works. Using Solaimani’s approach, we can see three kinds of space in the work of border artist Marcos Ramirez ERRE “Toy an Horse,” his Trojan horse piece in which the horse has two head and it is empty, is associated with physical space. “182 Shoes” is associated with conceived space. “Bodies of Crime,” associated with experiential space, represents an assemblage consisting of drug dealers, victims of the Drug War, the police and bullet-hole covered vehicles. I had the opportunity to meet Henri Lefebvre in France when I was a graduate student studying at UCSD in the 1970s and I have an interest in space, dimensionality and 3-D that dates back to childhood. This resulted in co-directing a holographic exhibition, “The Peoples of Los Angeles,” at the USC Atelier Gallery for the Olympics Arts Festival in 1984. In “Estuary,” I am influenced not only by the work of Lefebvre but also Gilles Deleuze and Felix Guattari along with Manuel DeLanda. In my book *Border Writing* (1991), I put forward a model of the border, the border machine (machinic assemblage). Scripps geomorphologist B.T. Werner (IGPP) and I are engaged in a critique of this model from a complexity science approach. The complexity science approach that Werner and I are using conceptualizes multiple time scales stacked as a hierarchy: a) shorter time scales (nanoseconds to days); intermediate timescales (weeks to decades) and longer time scales (centuries to millennia). In “Estuary,” I portray cultural estuaries: family assemblages of mothers, relatives and children, couple assemblages, assemblages of crowds that include a boy with a beret, wearing sunglasses, a bearded man and a hummingbird. In the upper right hand corner, a vaguely pre-Colombian figure wears a crown, or perhaps spiked hair, and a spiked collar. There is a mixture of past and present. I include a child, lost in contemplation, in the upper left quadrant. In order to understand the border system, including the Tijuana estuary, we must consider decision-making on the part of individuals on shorter time scales about if and when to cross the border, multiple levels of description, including changes in immigration policies and laws in the United States and globally, and both linear and nonlinear (two-way) interactions and relationships.

“White Punks on Dope”
The Drug War has been declared a failure in a 2011 report issued by the Global Commission on Drug Policy. This painting is not about whether or not drugs should be legalized, but
rather about two issues, first, the pain that has been associated with the violence of the drug war in the Mexico-US border region and second, the way in which post-9/11 culture has criminalized many aspects of life in a way in which an appreciation of the magical and the spiritual (outside of organized religion) is made difficult. My great-great grandfather was a friend of Quanah Parker's. Parker was a founder of the Native American Church. Peyote is a sacrament. For thousands of years, various substances have been used to enhance ease of contact with other forms of reality. Some forms of mental illness also bring us closer to the magical, hallucinatory world experienced by shamans.

“La Marquesa”
This painting is about writing. Why do we enjoy writing our names in different ways? An entire stage in the history of graffiti art was devoted to a focus on the writing of the name of the artist. On the left, my performance character, La Marquesa can be seen (with the spiky hair and the tutu). There is a stencil of a wrestling mask on the right side. In 1986, I crossed the Mexico-US border wearing a silver wrestling mask of the wrestler Matematico. I crossed as a performance character, The Wrestler Bride. I carried a portable altar in a glasses case filled with potions from a botanica. When I was asked what the purpose of my trip was, I said I was on my way to see the G.L.O.W., the Gorgeous Ladies of Wrestling. I was sent to Secondary Inspection. I refused to remove my mask unless I could go in a private room with a female officer. A male officer opened my glasses case and decided that I was a bruja. He allowed me to go into the private room. I lifted the mask for the female officer and I was allowed to cross. Berta Jottar, a video artist, videotaped my adventure (although she was not allowed in Secondary Inspection).

“Luisa’s Mother”
Luisa Valenzuela, an Argentine author, has written about her relationship to border culture. She has lived and written novels in Mexico. Her mother was also a writer. This painting shows a woman in a hat. It is based on a photograph of Luisa Valenzuela’s very elegant mother, Luisa Mercedes Levinson. The images are Xeroxed using an HP Photosmart Express.

Bio
D. Emily Hicks, Ph.D., did her undergraduate work at the San Francisco Art Institute, UC Berkeley and UC San Diego. Hicks teaches in the departments of Chicana/o Studies and English and Comparative Literature at SDSU (joint appointment). She has also taught at USC, UC Irvine and the UABC in Tijuana, Mexico. She is the director of the the Border Institute for Advanced Studies in Nonlinear Events and Structures. She nearly completed a pre-med major at UC Berkeley before deciding to get a B.A. in Spanish. In high school at Francis Parker in San Diego, she took classes with the artist Belle Baranceanu. She studied in Europe as both an undergraduate and a graduate student ( Universidad de Barcelona in Gerona, Spain and the Ecole Pratiques des Hautes Etudes in Paris). At UCSD, she studied under Herbert Marcuse (as a member of the study group on Aesthetics), Fredric Jameson, Carlos Blanco-Aguinaga, Rosaura Sanchez and Michel De Certeau (dissertation Chair) at UCSD (Ph.D., Comparative Literature, 1979). She has been a member of three art collectives, Werkgruppe (with Daniel J. Martinez, Lori Black and Mark Deutrom), BAW/TAF and Las Comadres. Her art work has been reviewed in Art in America, Art News, Artforum and elsewhere. She has lectured and performed (as a performance artist) in Mexico, Uruguay, the
United States, Canada, Finland, Denmark (Copenhagen), the UK (Cambridge), Hungary (Budapest) and elsewhere. Recently, she has exhibited her paintings at Casa Familiar’s The Front gallery in San Ysidro. She is the author of Border Writing, the Multidimensional Text (University of Minnesota) and Ninety-five Languages, Education in the Twenty-first Century. Hicks is completing an article on complexity science and the Mexico-US border with B.T. Werner (IGPP, Scripps) as well as a book on Magna Carta and mixed ancestry. One of her graduate students at Dartmouth, Kristal Bivona, has been invited by Teddy Cruz (UCSD) to attend a conference on border issues this summer in San Diego. Another graduate student, Jen Gutierrez, a Ph.D. student at UC Irvine, is creating an archive about Hicks’ art and the work of the twenty-two women artists who have been members of Las Comadres. Her graduate student Sara Solaimani completed her MA in CCS at SDSU on border art and the work of Marcos Ramirez ERRE. Hicks is currently interested in comparative immigration policy studies, including naturalization law. She will be presenting her research on borders this summer at a conference in Leiden, The Netherlands. Her son graduated from Pomona College in 2011 with a B.A. in Computer Science.
The Artist from Indonesia

BULL

Ali Redman (2011)
Stephanie Lie created these images by attaching a camera with a bubble lens to a weather balloon and then tethering the balloon for retrieval. They are of the San Elijo Lagoon, another local estuarine system that has been the subject of the artist’s research and work. Stephanie says that the four images above are representative of the four phases of the moon. Like the earth casts a shadow across the moon, so does the weather balloon over the Lagoon in the third image.
A Larger View of the Fourth Image of the San Elijo Lagoon
by Stephanie Lie (2011)
The UCSD Visual Arts MFA Candidate and Artist
Elizabeth Chaney

Artist's Statement

"Experiment #1: Objeto de la Jurisdicción"

A network of institutions stitch together a complex jurisdictional quilt over the Tijuana River Watershed. The Estuary, where the rio spills into the Pacific Ocean, has a complex, and, at times, controversial, history of human use. Over the course of the past century, the land has hosted a post-WWII gunnery range, an informal landfill, horse ranches, farms, DHS infrastructure, a State Park, and a National Estuarine Research Reserve.

While I have worked proximate to the Estuary for about a year and a half, with a collective of organizations in Tijuana addressing social and environmental impacts of the articulated U.S./Mexico boundary, I hadn't been fully aware of the multi-layered (and oft contested) history of human use of the area surrounding where the Rio Tijuana enters the Pacific. Following the seminar, I have been researching historic patterns of land use (or proposed use), to get a sense of the range challenges faced by the wetlands in the past (and, hopefully, to better understand present challenges the estuary faces).

The drawing distills research on patterns of jurisdiction, to be further developed in an installation. The installation will locate five of the plant species referred to in the text in a structure built from tires collected from the Laureles Sediment Basin. Audio, mixing
spoken word with ambient sound recorded at five sites in the watershed, will be broadcast from a parabolic dish positioned above an opening in the structure (in order to hear the audio, a person would need to enter the open space, which is based on an overhead image of the Laureles sediment basin).

Elizabeth Chaney grew up around ex-tobacco farmers, moonshiners, and folklorists in Southside Virginia. She now lives and works in Baja Alta California. (BFA, 2007, Sculpture and Extended Media, Virginia Commonwealth University; MFA, anticipated 2012, Visual Arts, University of California San Diego)

Objeto de jurisdicción

Elizabeth Chaney (2011)
The Visual Artist
Judith Nicolaidis

Artist's Statement

During the workshop, Tijuana Estuary and Beyond, scientists presented perspectives for understanding the complexities of the ecological interactions of an estuary. One scientist referred to a riverine estuary as a "lung." Like a vital organ of the Earth, an estuary breathes in and out daily and seasonally between fresh water and salt water sources of nourishment, creating a rich breeding ground for plants, animals, and birds. I found this image of estuary as lung particularly intriguing.

I have traveled a lot and created art work in Mexico and have long had an appreciation for indigenous folk art and culture around the world. I have collected several examples of the
Mexican good luck "Buena Suerte," an object that is hung in a home or business to attract benevolence from any spiritual source, religious or magical. I also enjoy "milagros", miracles, the small metal representations of body parts that are used to focus spiritual assistance on a physical or symbolic aspect of healthy life function.

From these sources of inspiration, I decided to make a Buena Suerte for the Tijuana Estuary. Additionally, I like the idea of reuse, so have used recyclable materials where possible.
Ariana Merlino (2011)
The Story Artist
Pat McGillis

The Artist with Her Book of Images and Essays
The Mother Artist
Sheila Merlino

Bull (2010)
Artist's Statement and Description of Work

INVADERS IN THE ESTUARY, acrylic on canvas
One of the scientists gave a vivid account of clandestine acts by people who are digging for artifacts in the estuary and the results are open earth which plays host to otherwise lovely flowers (or other invaders) but in the estuary they can crowd out the indigenous fauna.

Ariana Merlino (2011)
FISH SWADDLED IN PLASTIC BAG 1, acrylic on canvas
Animals can be snared or impeded in a variety of ways or deceived into thinking of plastic bags or other plastic objects as food One of the scientists showed a most dramatic picture of a large turtle with what looked like the ends of a plastic bag he was in the process of ingesting.

SWIMMING WITH DETRITUS A, multi-media on canvas

SWIMMING WITH DETRITUS B, multi-media on canvas
OLD TIRES RETURNING TO REST, acrylic on canvas
A long tale about the United States selling and sending used tires to Mexico, where they sometimes end up rolling down the hills, through the river and waterways and end up back on the United States side of the Tijuana Estuary.

Ariana Merlino (2011)
The Center for Marine Biodiversity and Conservation
Master's Candidate Artist
Melissa Yuen

Melissa's on the Left

Artist's Statement

The first time I ever visited the Tijuana River Estuary, where the U.S. and Mexico met, I learned about the habitat degradation and border issues.

The second time I visited the Estuary, for the Artists Meet the Scientists workshop, I was shown how people have worked to save and restore this amazing habitat.

This painting is inspired by these ongoing issues and efforts. You'll notice that the images are in juxtaposition yet connected, as the efforts to improve the estuary are an ongoing
challenge. For example, each downpour of rain becomes a flooding of discarded tires, debris, and sediment that require Herculean efforts to clean up (and lots of money!). But innovative projects, such as the use of these tires to construct retaining walls with built-in planters, help relieve pollution while creating more stable and usable settings for people. The lowest panel with the grassy field and tributary was the most amazing to me, as it was once, not so long ago, a trash dump. Now, you can find endangered clapper rails and other rare birds nesting there each season.

There is still so much to be done. Meeting some of the amazing scientists and legal professionals that dedicate their careers to conserving the Tijuana Estuary gives hope that future generations will have a chance to experience a vital ecosystem - even if it's a pocket among urban development. I am grateful for all of these people, and for the opportunity to capture a bit of their achievements with my painting.

Melissa Yuen is a Maryland native who moved to San Diego last year to pursue graduate studies in marine biology and conservation.
Appendix C – The Art Shows

Art Show at SIO
May 25, 2011
at the Martin Johnson House

&

Art Around Adams
June 4, 2011
on the patio of
Dimille’s Italian Restaurant
Come to An Art Show at SIO
On Wednesday, May 25th
At the Martin Johnson House (T29)
From 4:30 to 7:30
And Share Sangria and Cheese
over Estuarine Science Inspired Art

Photography by Melissa Yuen (2011)

A production of the Center for Marine Biodiversity and Conservation capstone project by master's candidate Ariana Merlino, entitled

Artists Meet the Scientists: The Tijuana Estuary and Beyond
The body of work shown here today at Art Around Adams, on the patio of Dimille’s, is a result of a Master’s Capstone project by Ariana Merlino, entitled –

**Artists Meet the Scientists – The Tijuana Estuary and Beyond**

The intent of the project was to provide artists and scientists an opportunity to enter dialogue with one another on topics related to marine science and conservation. The focal point is the Tijuana Estuary, its associated coastal zone and other estuarine systems. The formal start of this dialogue was a workshop that took place on April 16th at the Tijuana Estuary Visitor’s Center in Imperial Beach. It consisted of a conversation about the system’s ecology, problems and solutions that are all aspects of the Tijuana Estuary. Ariana asked the artists to generate work that would be reflective of one or all three of these elements.

The preliminary showing of a large portion of this body of work took place on May 25th at Scripps Institution of Oceanography where Ariana is currently finalizing a degree in Marine Biodiversity and Conservation.

The background is of a painting by one of the participating artists: “Bull.”

The participating artists whose work is represented here today are the following:

Emily Hicks (in consultation with Dr. Brad Werner) – Painting and Collage
Judith Nikolaidis – Buenas Suertes with Reused Materials
Melissa Yuen – Photos and Painting
Elizabeth Chaney – Paint on Wood, Map of TJ Estuary with Overlay
Stephanie Lie – Series of 4 Aerial Photos of San Elijo Lagoon
Pat McGillis – Art Book of Essays
Sheila Merlino – Multi-media Canvass and Paintings
“Bull” – Paintings – Mangrove and Octopus & Oiled Sea Turtle

The photography team of Enrique Fuentes
and Francisco Javier Buela Ramirez

The scientists who participated in the project are:
Dr. Ed Parnell, SIO-UCSD
Dr. Brad Werner, SIO-UCSD
Dr. Octavio Aburto, SIO-UCSD
Brian Collins, Tijuana Estuary
Dr. Jeff Crooks, Tijuana Estuary
Dr. Oscar Romo, Tijuana Estuary and UCSD

Thank you for coming!
Emily Hicks Does Her Thing! Performance over Art...
Francisco and Luis Drove to San Diego from Ensenada with Photos on the Day of the Show

Just Looking
Stuart and Jen – You Came!
BULL in the Shadows with Ali