

Mapping Ocean Dynamics

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KEYWORDS *Liminal, littoral zone, mobile and transient, ocean, observational, phenomenology, present, Space and Place, time*

ABSTRACT By creating a visually rich collection of observational drawings while standing directly in the Pacific and Atlantic Oceans for up to fourteen hours at a time, I aimed to augment the notion of what it means to map ocean environment. The drawings take the visual form of pen on paper scrawlings. Tinged in rust, the intense amalgamations and overlays of lines, points, nebulous structures, and open spatial volumes capture and delineate changing realities and dynamics of the shifting ocean currents, the spiral rebounds, the interstellar explosions, the lunar movements, and the constellations of the greater oceanscape.

INTRODUCTION The concept and execution for *mapping ocean dynamics* run directly against modern technologies for the mapping and identifying practices that typically inform us (both locally and globally) as to where we are in the world. As one stands alone in the surf for hours looking out to the open ocean, one begins to perceive the ordinarily imperceptible.

My work is not about copying the landscape. Instead, I am fascinated by the pursuit to observe and map the ocean dynamics through a direct relationship. My work is concerned explicitly with the visual analysis and interpretation of a body of water; by nomadically drifting along the fringe of the ocean, day and night, a new form of information and knowledge acquisition is revealed. Each drawing/map, having been repeatedly submerged in the water and “completed” through drying, takes on an unplanned, uncontrolled visual aesthetic: legible and fluid on one hand, and illegible and abstract on the other.

WHERE DO I START TO LOOK?

On dry land, I am recalled to my former views of what it feels like to be in the ocean. Those worlds are spectacularly interconnected and indivisible from one another, yet worlds apart. In his book *Cosmos*, Carl Sagan stimulates when he writes, “The surface of the Earth is the shore of the cosmic ocean. From it we have learned most of what we know. Recently, we have waded a little out to sea,



FIGURE 1:
Film still documenting the production of “Eight Hours in the Atlantic Ocean, Lizard Peninsula, Cornwall, England, August, 2010.

Image shows average depth in the ocean while drawing and the use of a 5.3 mm full body wetsuit.

enough to dampen our toes or, at most, wet our ankles. The water seems inviting. The ocean calls.”¹

With enormous respect to the ocean, I felt compelled to take that leap forward, toward the ocean’s horizon, to experience something new, something that does not exist on dry land. I can take a leap further through the act of drawing as a medium, to record the faintest or boldest of marks, and as a highly sensitive tool to explore, record, interpret, and see something closer. I take a blank sheet of paper nailed to a wooden board and walk into the ocean. When we are near or in the ocean, the subtle or profound changes associated with the phenomenology of that place are greatly heightened. When we are in the ocean we are somehow out of ourselves—further from something yet closer to something: suspended in both as well as situation in the liminal passage between the two. I will attempt to disseminate the informatively visual mapping aspects of my practice as an artist in the form of recent drawing work conducted this year, coupled with an expansion on the context, analysis, and observations of the work.

For the last three years I have been chasing waves—looking far out upon the Pacific and Atlantic Oceans, following the unpredictable flight paths of sea birds, and becoming dazed and momentarily lost as I watched the shifting water currents and atmospheric conditions. Such changes and conditions were always observed “out there”—

never looking back toward land. There is an intention for a seamless intimacy with the ocean as well as a heightened interaction with the drawing process. Although I stood in the margin of the beach and ocean, on average waist height in the water, every mark and visual record on paper was made while being immersed in the ocean. The hundreds and hundreds of marks that accumulate and overlap in a multi-layered matrix of visual information create an image that is perceptible to the eye, yet not immediately discernible and comprehensible. The visual outcome of a drawing after being in the ocean for extended hours at a time is perceptible but not habitable: the inconsistency of line, the lost information, the density of condensed hyper-information reveal something about the ocean, about our placement in the universe, but at the same time off-set our equilibrium and alignment with what we see and where we are.

A map, one might argue, has an intrinsic functional element to it. A map functions as a visual tool to locate oneself within an environment or to navigate from one place to another. Essentially, a map is used to identify where we are. In this contemporary world of ours I am not sure where we are anymore. It is one thing to say where we have come from, but where we are going seems ambiguous and unclear, yet wide open and without boundaries. A drawing does not have to operate within the parameters of being a functional object. I am interested in the hybrid



FIGURE 2:
*Drawing Three Hours
in the Atlantic Ocean,
Cornwall, England,
September 2010.*

*Image shows the scale
of the drawing on its
wooden board attached
with a circulatory
system of nails and
copper wire.*



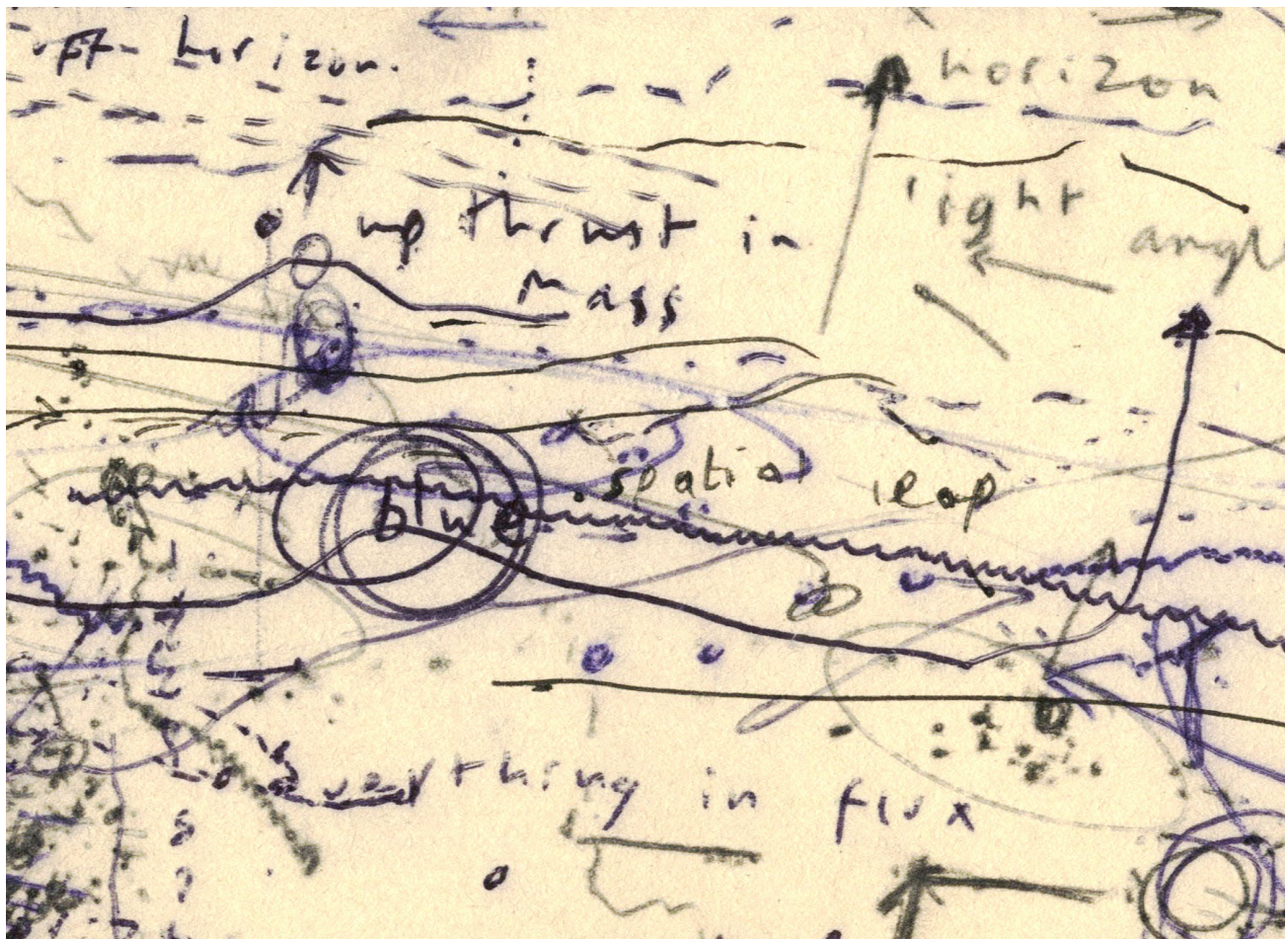
crossovers between the functional and the expressive. The preposition of place “in” is loaded with meaning respecting the context of place and space. If we stand “in” a park within New York City or Mexico City, there will be millions of people around us. I have discovered that while standing “in” the liminal margins of the beach and ocean, I can be alone at a particular time and place. As the global population and density of people intensifies, such places of emptiness and nothingness may become more and more visible and therefore disappear. Part of the reason for drawing in the ocean for extended hours is to absorb the sense of place that will one day not be there as it is now: to go to those places where the horizon dilates and stretches far and wide and be where the naked eye and the spirit of being a nomadic human can become entangled in the nebula clusters of stars within a jet black sky. Such experiences cannot be simulated through virtual online worlds; we must go to them and become sensitive to how to see them again.

THE PROCESS

While observing the macro and microcosmic realities of a subject as ever-changing, as dynamic, and as immense as the ocean, I held a wooden piece of plywood and a handful of pens. Nailed onto the

FIGURE 3: *Nine Hours in the Atlantic Ocean, Cornwall, England, August 2010.*

The image shows a corner of the drawing board after the nails and copper wire have been removed. Suspended particles in mid-water juxtapose with the mapping of an empty horizon range, together with merging water currents and bird flight trajectories.



wooden board was a single piece of paper measuring 40.5×13 inches. The width of paper echoes the horizontal plane of the open ocean. The observations by James Turrell regarding the celestial vaulting of the horizon are inescapable while out there in the ocean; that slightly arching line that makes the horizon where you can see the bulge and curvature of our planet. Running around the edge of the paper, held by the nails, is a thin continuous line of copper wire. The copper wire, conceptually and practically speaking, draws and attracts the electrical energy from the ocean and the greater surroundings, and it aids in holding the paper to the board. In effect there is a constant circuit of buzzing energy around the paper. The work of Walter de Maria's *Electrical Earth Field*, 1977, continues to attract my attention. As an artist I find fascination in the natural world and the natural sciences, in particular subjects such as astronomy, tropical cyclogenesis, theories such as the butterfly effect, quantum theory, gestalt theory of perception, thermodynamics, and so on. My interest lies in the illustrated diagrams of such complex theories that one may find in any book on the subject, as well as the terms that are used in such contexts. For instance, "atmospheric instability" is one of the necessary elements in the development of a tropical cyclone over the ocean. Such words as density, matter, distance,

FIGURE 4: *Nine Hours in the Atlantic Ocean, Cornwall, England, August 2010.*

Towards the center of the drawing (where the massing of information has been built up after extended hours) are descriptive observations of blue spatial volumes in the sky and analytical observations of upthrust movements in the ocean during the tidal fluctuations. Spatial leaps are noticed and recorded around the sky/ocean relationship.

motion, speed, etc, scatter themselves around the paper of the drawing in an attempt to quantify, interpret, analyze, and simply to crossover into the fields of written language, as a supplementary aid to the visual. The mapping work of Mark Lombardi is engaging, acting between being an aesthetically poignant image and a functional visual aid in tracing the historical actions of people and money in transition.² In addition, the Taoist notion of matter and energy as interchangeable “things” is profound. Contemplations of the solitude of the individual within the wider universe can be toyed with by reading through the book *The Poetics of Reverie* by Gaston Bachelard. Bachelard writes, “...when he is truly the author of his solitude, when he can finally contemplate a beautiful aspect of the universe without counting the minutes, that dreamer feels a being opening within him, suddenly a dreamer is a world-dreamer. He opens himself to the world, and the world opens itself to him.”³

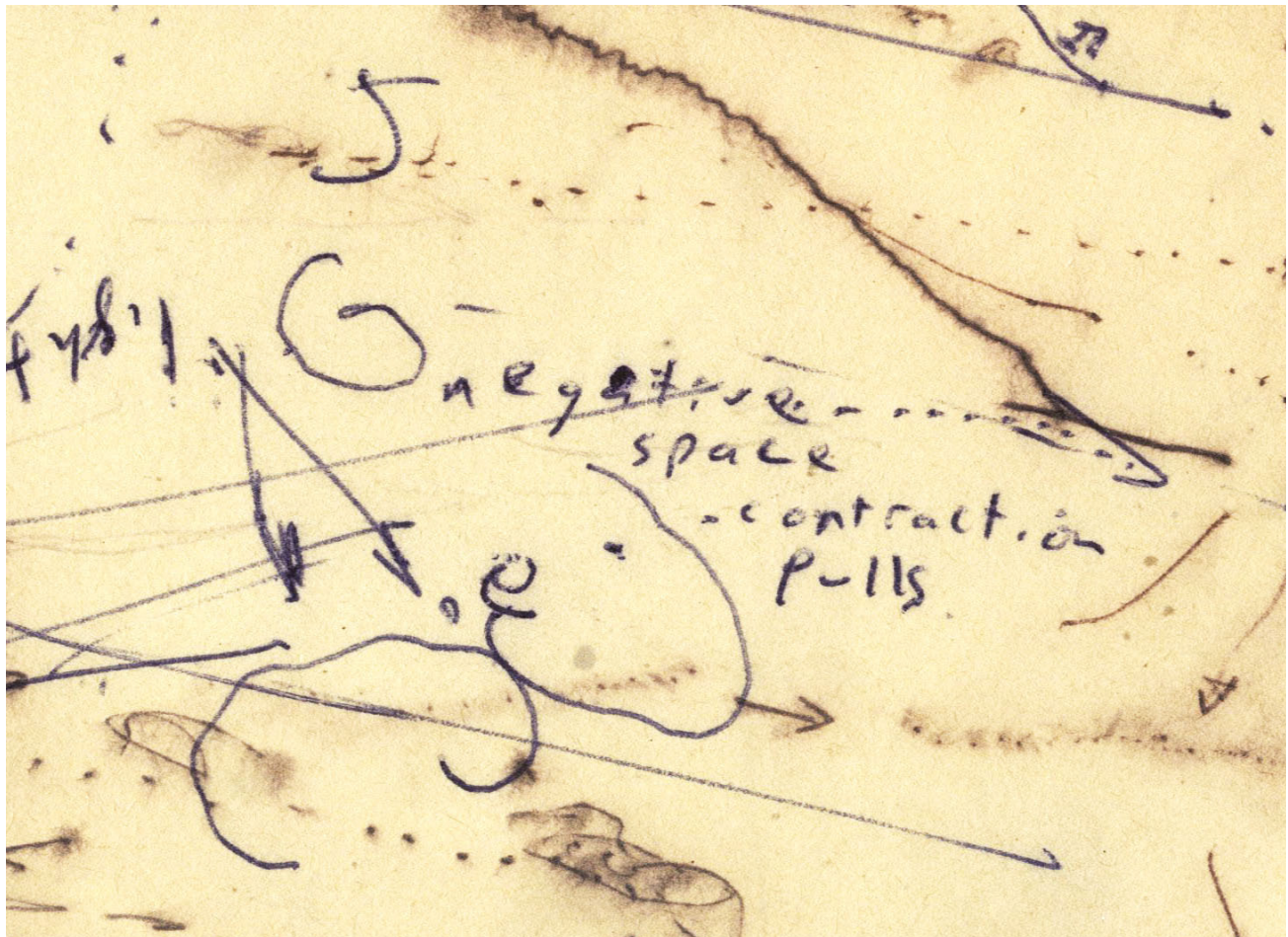
BACKGROUND

From September 2005 to February 2008, I lived and worked on the Pacific coast in southern Mexico. It was there, while teaching at the Universidad del Mar, that I began to spend considerable time with the ocean. The concept of the wooden drawing board, and consequently the process of making the drawings, emanates from two things. First, the way that surfers hold their board, and how, for those surfers that spend a lot of time in the ocean, the board and their body fuse and become one. The surf board is essentially a floating, flat platform shaped into a form that allows for the smooth, fluid movement through the water. As an object in its own right, surf boards are intriguing, but when the object (the board) meets the subject (the ocean), or vice-versa, there is fantastic chemical and cosmic fusion that occurs. I am aware from drawing and surfing that the presence and motion of time moves very differently when you are in the ocean. It seems like an hour in the ocean is like several hours on dry land. This time paradigm is perplexing and intoxicating to experience. The drawing board that I fashioned is a specific size and format, similar but longer than the body board that I surfed with for innumerable hours during my time in Mexico. The drawing board, ergonomically speaking, allows me to hold it comfortably for hours and hours. The simplicity of the plywood as a material was greatly inspired by the characteristics of how Mexican people build houses, where, respectfully speaking, they seem to follow no defined plan or methodology in the construction process. They build in the rawness of the moment, yet

the building develops with a spirit and individuality that I came to admire. Next, I am intrigued by the constant upgrades and developments in communication technologies with circulating buzzwords (such as: *mobile, hot-spot, wireless, multi-functional, augmented reality*, etc.) gyrating around in more and more complex trajectories. I wanted to somehow follow this trend, but at the same time explore and discover a place and space within our rapidly changing world that is still largely undiscovered and unknown—for the time being at least.

Through hours and hours standing in the ocean, I often have to switch hands due to the inescapable forces of gravity pushing the drawing board down, or the frequent, often spontaneous moments when the energy of the ocean unbalances my physical mass and I fall through the water, so to speak. Through the quick action of exchanging the drawing board from one hand to the other, the board often rotates 180°. There is no aesthetic outcome which I wish to push each drawing toward. The primary focus in the work is about observing reality and exploring the experiential depths and latitudes associated with observational drawing. However, the aesthetic outcome of each drawing is characterized by having no defined center and where the edges and corners of the image/paper have been jolted and displaced. Fundamental conventions, such as perspective, have been fractured and lost, and it is with this visual point that I am interested. The notions and conventions heavily associated with the history of perspective within the context of landscape drawing, stemming back to the Italian Renaissance are abandoned in my practice. It is not about finding or positioning myself within the center of the drawing whereby the world and universe diverge from that point. The drawings do not absorb subjective thoughts or the like; it is all about the perception and experience of reality. (A ten day meditation course at the Vipassana Center in Valle de Bravo, outside Mexico City in 2007, greatly initiated a more sensitive connection with this notion as principally Vipassana meditation concentrates on seeing and observing things as they really are.)

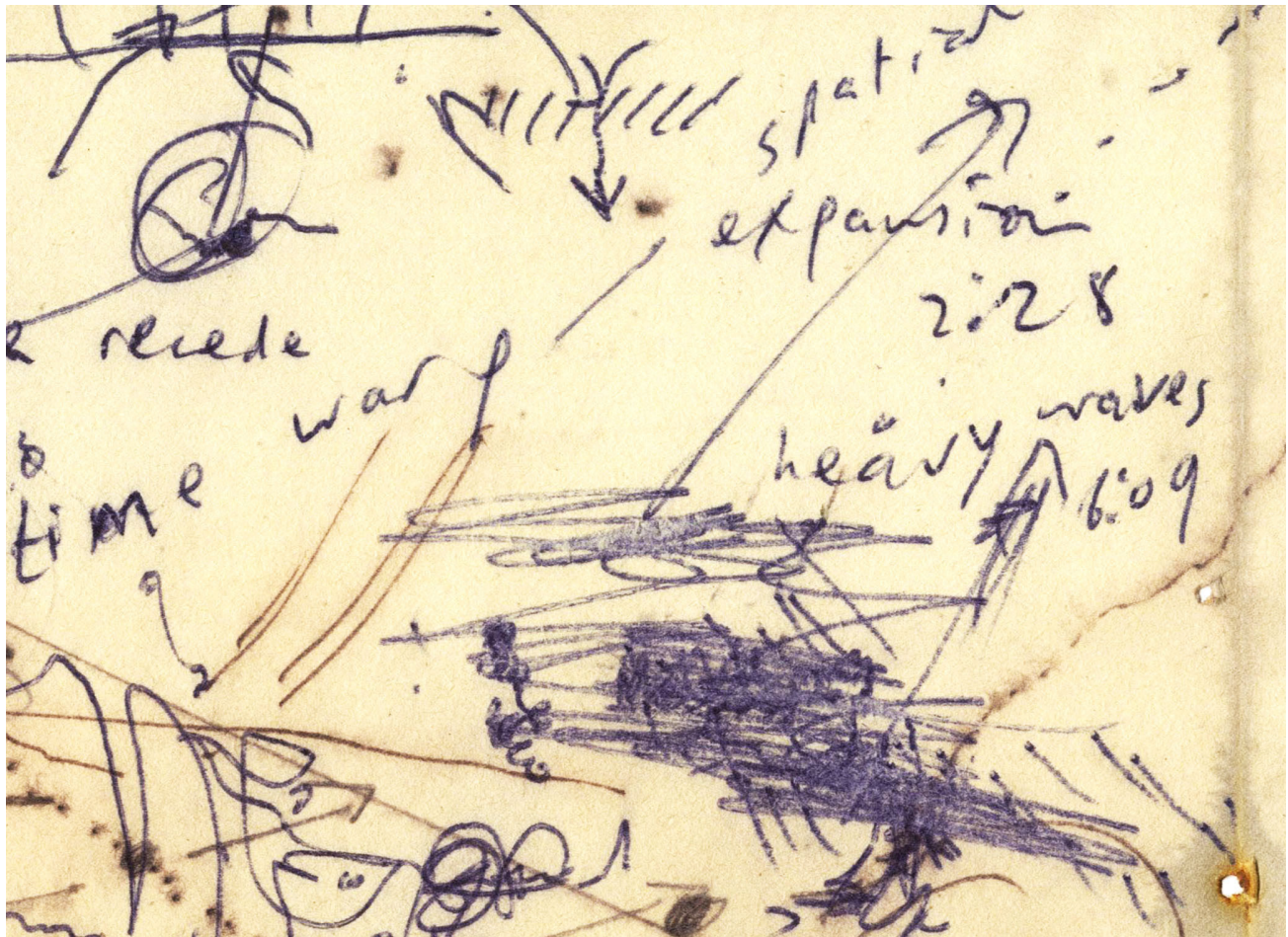
The Pacific and Atlantic Oceans are places in our world that still possess that wildness—seemingly infinite vast chasms of unmapped and uninhabited space. In our contemporary society there is an escalating condition referred to in Japan as the “Hikikomori epidemic” where “people never leave their home—they shop online, work online, their relationships are online. Maybe we’ve become a different species, maybe our biology needs to adapt to these new worlds...”⁴ says designer Revital Cohen. In response to this, I want to get off-line, literally and physically. The



ocean is the place to do that. My time drawing in the ocean is reflected by hours of solitude, composed of the passing hours as I stand looking out there toward the horizon. There is a distancing from one reality and a merging and interchanging with various other realities even though they exist on simultaneous spectrums. Through the act of drawing while standing in the ocean and recording what I see, I can challenge and break the limitations of contemporary modes of communication. I can go beyond the physical amount of minutes we can communicate with someone, either verbally or through text messages. I want to communicate authentically with something in real time, something that is real and not virtual, although the simulated copies of the real are becoming so sophisticated nowadays that the definition between the two is vague.⁵ It is not about mere copying or visually representing the ocean. It is about generating an image of something that is caught in a constant flux, bound to the systems of entropy and a fantastical range of laws and phenomenon. The systems of entropy preoccupied Robert Smithson intensely and his thoughts about the acquisition of information are particularly interesting. Smithson, in conversation with Alison Sly in 1973, states, "In information theory you have a kind of entropy. The more information you have the higher

FIGURE 5: *Five Hours in the Atlantic Ocean*, Cornwall, England, August 2010.

Complex interplays of water currents and air movements challenge the medium of drawing. One must respond to a multi-dimension reality with a time paradigm that is shifting and revolving on multiple axis and parallels. The observation of this reality and the making of an image from such phenomena is the challenge. In this detail we can see the negative space contraction movements in the spiral arms that form, then collapse, when the waves advance, and then recede.



the degree of entropy is, so that one piece of information tends to cancel out the other.”⁶ The drawings in their rawness and intention actively challenge how an image is created, and in turn, how one perceives that image. In addition, the drawings question and explore the relationship with the subject/object/interpreter. I am also compelled by the freshness of new hybrid interconnections between contemporary art and science, such as biosemiotics. In a recent issue of *New Scientist*, Frederik Stjernfelt of Aarhus University in Denmark extends his thoughts on biosemiotics by stating, “Notions such as ‘information,’ ‘message,’ ‘representation,’ ‘code,’ ‘signal,’ ‘cue,’ ‘communication,’ and ‘sign’ crop up all over biology.”⁷

I want to be somewhere where there is still a vast open area that is not affected by our modern matrixes of communication networks and platforms. Some common communication platforms available to us on the Internet present us with the opportunity to keep in touch socially and spatially, one might say to “stay connected,” yet they do not satisfy me. I want something more direct; importantly, I am chasing after the authentic, real experience about drawing reality (at least a fragment of reality) within this rapidly changing world that we seem to rush through at a manic speed. In essence, when I draw in the ocean I am

FIGURE 6: *Five Hours in the Atlantic Ocean*, Cornwall, England, August 2010.

In contrast to the negative space contractions is this expansion of volumes and spatial structures, as observed in this close-up of one of the sides of the drawing. The left, right, top, or bottom of the drawing is undefined as the drawing frequently rotates clockwise or anti-clockwise. Layers of visual marks and text gradually build the image. While drawing and writing I do not look at the paper. My gaze is constantly connected with the ocean, sky, bird, star, sun, cloud, etc. Mark-making strategies are devised extemporaneously in an attempt to identify and interpret complex movements and happenings.

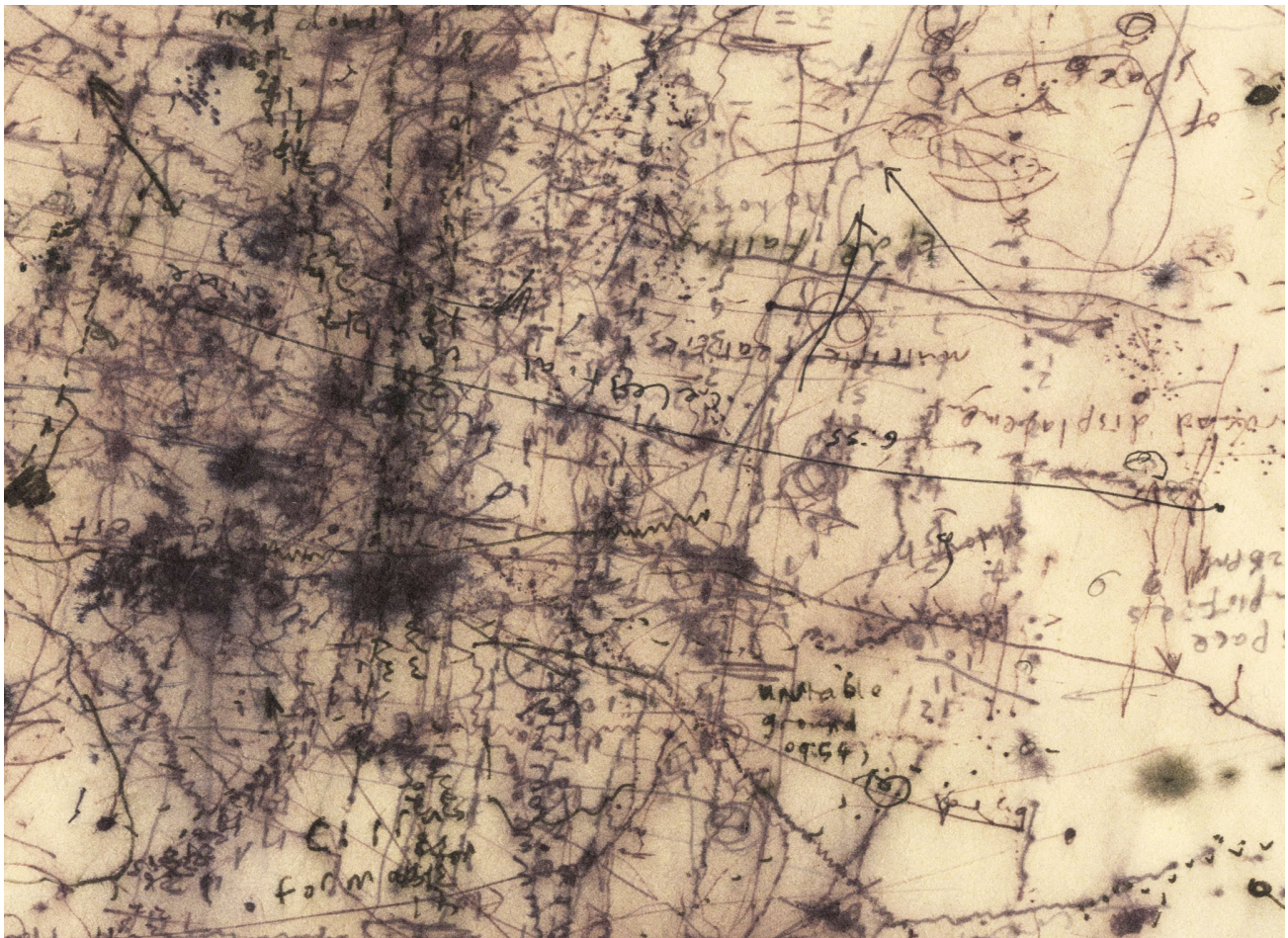


exploring the direct connection and communication between the object (the drawing) and subject (the ocean environment). While showing at the *Selections Spring 2010: Sea Marks* exhibition at the Drawing Center, New York, curator Nina Katchadourian commented that this subject and object relationship cross over with one another. The drawing, through being immersed in the ocean, takes on visual and physical characteristics of the ocean, for instance through the buckling of the paper, or through the rusty striations that spread out from the nails that hold the paper down. These incidental and uncontrolled marks and happenings on paper augment together into an abstract amalgamation of marks that trace and delineate the ocean dynamic and atmospheric conditions, albeit a microcosmic, unedited, unfiltered fragment of an endless, ever-changing force and energy. In the exhibition catalog to the *Selections Spring 2010* show, Nina Katchadourian writes, "Matthews stands looking out at the open ocean, knee to waist-deep in the water, remaining on the same spot as much as physically possible. His immersion mentally and physically, produces a kind of loop: he records the ocean just as the ocean records itself on him."⁸

As the physicist Ernst Mach remarked, "The boundaries between things are disappearing, the world and the subject are no longer sepa-

FIGURE 7: *Fourteen Hours in the Pacific Ocean, Playa Domical, Costa Rica, April 2010.*

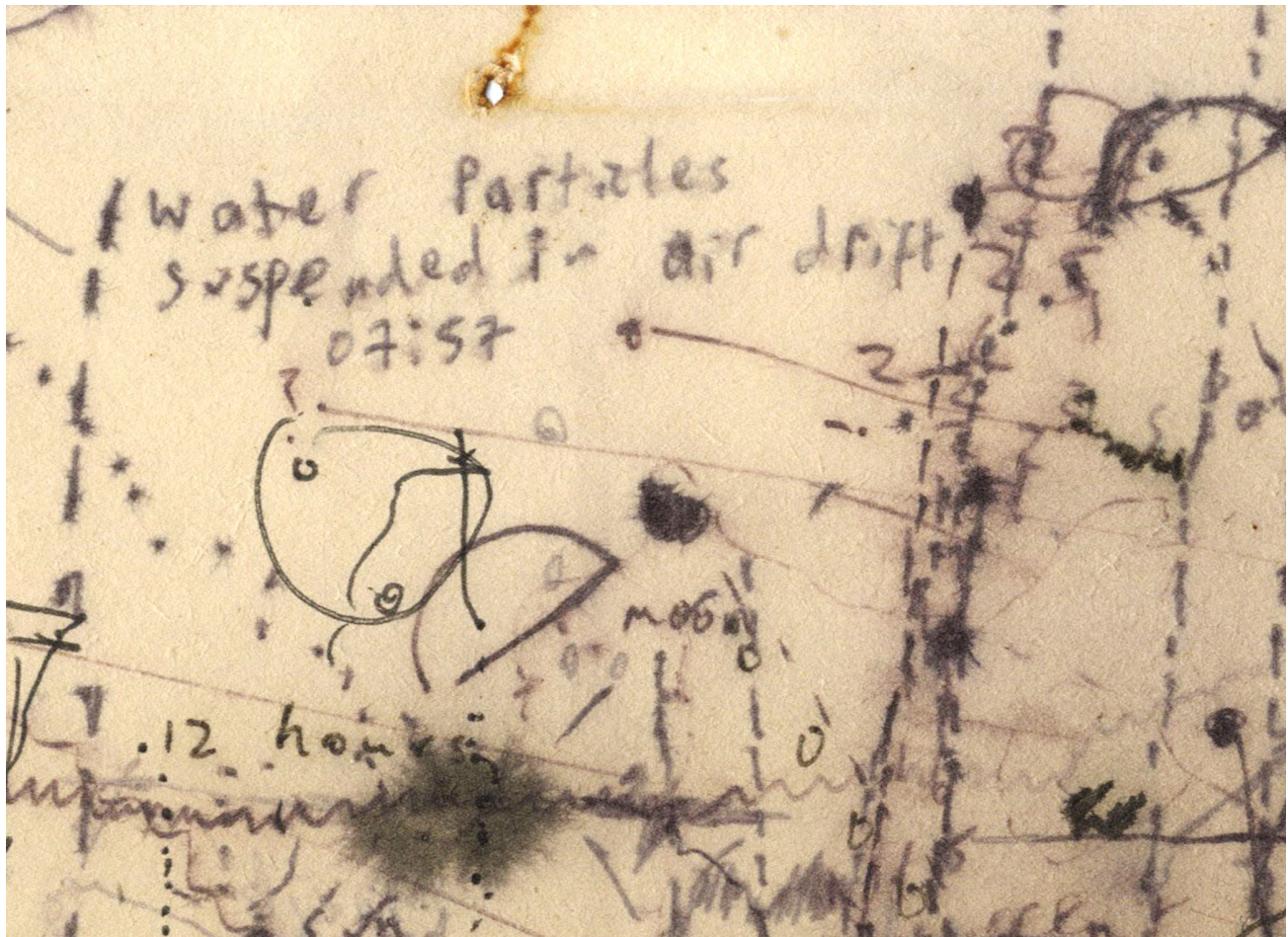
Globular clusters of marks develop in the center regions of the paper as the rising, dropping, and moving of waves is recorded during hours of standing the intensity of the tropical sun. Fragments of information have been suspended on paper while fragments remain lost and incomplete. At 09:54 AM unstable ground was recorded.



rate, it seems time stands still.” As a contemporary artist, these thoughts by Mach, written years before handheld communication devices such as the now ubiquitous iPhone, hold tremendous creative weight. To condense these thoughts about the boundaries between things, with the world and the subject becoming no longer separate, I find the thoughts of R. M. Rilke have a particular impact on my practice. In the chapter regarding “intimate immensity,” Rilke comments, “The world is large, but in us it is as deep as the sea.”⁹ However, as we can observe and feel in our peculiar contemporary time through the design and application of increasingly sophisticated technological instruments, the world is not *literally* getting smaller, but our interrelationships with it are diminishing. The sense of scale, locally and globally, is vanishing rapidly. Mapping instruments (such as those now available on the iPhone) interest me. The hand and eye relationship and gesture-based interaction with the phone’s user interface, such as “swiping,” “dragging,” and “enlarging” or “minimizing” a high definition image, stir the critical thoughts regarding how we perceive and engage with the reality around us. This reality is seen and experienced not by looking “out there,” but by looking down into a small screen in the hand and following a flashing blue icon. We can get from point “a” to point “b” very easily, but we

FIGURE 8: *Fourteen Hours in the Pacific Ocean, Playa Domical, Costa Rica, April 2010.*

07:37 AM: Water particles suspended in an air drift were recorded. Irregular, asymmetric forms outline the passing motion of the moon, while retrograde motions can be seen to the right as heavy waves draw back water that is higher up toward the beach. Detail of one of the nail holes on the edge of the paper can be seen with a rusty line striation branching away from the density of globular structures at the center of the paper. Are such incidental marks, enhanced by the receptive saturation of paper and drying of the solar energy caused by cosmic influences, aided by the copper wire running around the paper in a continuous circuit?



are loosing our perceptive awareness of the middle ground in-between. It is getting increasingly difficult to become “lost” in the world with things such as iPhone and GPS devices. I am interested in what happens as we return to being lost, when we *are* lost, and how we find our way back again.

While I was presenting a research poster at the Drawing Research Network conference held at the University of Brighton, England, in September 2010, the keynote speaker, Professor Deanna Petherbridge, commenting on the conference theme of “observation, mapping and dialogue,” stated that through observational drawing and the medium of, for example, pencil on paper, one often encounters and experiences “hesitations” between what is seen, and what is visually recorded. I am very taken by these “pausing” and “hesitation” actions. Such hesitations occur between the subject and the object during the intensity of observing and recording the ocean that is constantly in a state of movement and change. An example of this is where multi-dimensional happenings in the ocean, such as contracting or expanding spirals of water, occur simultaneously with a pelican flying just above the horizon and moving at an increasing speed from left to right, coupled with the dropping force of a large wave after it reaches the incline of the beach

FIGURE 9: *Fourteen Hours in the Pacific Ocean, Playa Domical, Costa Rica, April 2010.*

Spatial warps identified at 2:40 PM and later spiral explosions at 5:20 PM. On following the flight path of a bird across the paper, the bird suddenly dropped into the ocean. The theory of the butterfly effect preoccupies me at times. Spatial apexes collide and vibrate next to distortions in time as the horizon separates after acute observations and trying remain upright in the ocean.

after travelling thousands of miles over the open ocean. It is under such conditions when attempting to draw and map complex movements and happenings on paper that I have observed that reality starts to dilate and reshuffle the resulting composition. The visual experience and process of mapping this complex mass of information slips and slides, crossing over into parallel dimensions of space and time. The mental analyzing and perception of information, the intensity of drawing while often being momentarily weightless within the water, the medium of pen and paper, and the limits of drawing without any technology can be explored to greater depths. The drawings, interpreted as maps, consequently take on the visual impression of a map that is not connected to one place, and that visually operates within multiple dimensions without occupying any one of the dimensions completely. One may interpret the visual aesthetic and outcome of the drawing as being about time, yet out of time—but what time are we in anyway?

“Contemporary man...” writes Lygia Clark, “learns to float in the cosmic reality as in his own inner reality. He feels overcome by dizziness. The crutches which supported him fall from his arms. He feels like a child who has to learn to steady his balance in order to survive.”¹⁰

The notion of balance while drawing and observing the ocean, both physically as well as in terms of visual perception, has preoccupied me for the last year. The drawings produced in the Pacific Ocean off Costa Rica this year were made further out in the ocean that I usually work where the depth of the water was deeper and waves and currents larger and stronger. It was not so much about challenging myself physically, but more about challenging how an image is made, and how to intensify the interrelationships with the drawing as a medium and tool with the core subject, the ocean. The images present project documentation from this year. The close-up views of the drawings were made from a digital scanner but have not been edited beyond cropping and minor brightness and contrast balancing. The following words that derive from various oceanic sciences, metrology, geology, astronomy and cartography could be used to interpret the information mapping of the ocean environment:

Collapse, accelerate, longitude, latitude, center, debris, infinity, mass, stability, shifting, rifts, intersection, energy transfer, rebound, spiral, fracture, absorb, density, incompleteness, volume, retrograde motion, vibration, vacuum, alignment, feedback, instantaneous, nebulous, simultaneous, thrust, collide, converge, diverge, rotate, recede, drop, rise, flux, impermanence...

BIOGRAPHY

Peter Matthews was selected by Nina Katchadourian, curator at the Drawing Center, New York, to show three Pacific Ocean drawings for the three-person “Selections Spring: Sea Marks exhibition, 2010.” Matthews literally stands for extended hours in solitude, waist to chest deep in the ocean, mapping the ocean dynamics using just a pen on paper.

Born in England in 1978, Peter Matthews studied his MFA at the Nottingham Trent University, England. He regularly shows internationally.

NOTES

- 1 Carl Sagan, *Cosmos* (London: Abacus, 1995), 20.
- 2 See Robert Hobbs, *Mark Lombardi Global Networks* (New York: International Independent Curators, 2003).
- 3 Gaston Bachelard, *The Poetics of Reverie*, trans. Daniel Russell (Boston: Beacon Press, 1971), 173.
- 4 In conversation with Revital Cohen, *Icon Magazine* 88 (October 2010): 82.
- 5 For extended reading on this see Jean Baudrillard, *Simulation and Simulacra* (The University of Michigan Press, 2000).
- 6 Jack Flam, ed., *Robert Smithson: The Collected Writings* (London: University of California Press, 1996), 302.
- 7 *New Scientist* 207, no. 2774 (August 2010): 31.
- 8 Nina Katchadourian, *Drawing Papers: Sea Marks: Selections Spring 2010*, 89 (New York: Drawing Center, 2010): 7.
- 9 Gaston Bachelard, *The Poetics of Space* (Boston: Beacon Press, 1994), 183.
- 10 Lygia Clark, *Livro-Obra* (Rio de Janeiro, 1983), 151.