Intertidal

notes and discussion of the expanded cinema work by Alex MacKenzie

Pacific
Biological
Laboratories

Pacific Grove, California

March 23, 1948

Dear Mr and Mrs Martin:

Before it goes out of print, perhaps not ever to be re-issued, let me send you a copy of "Sea of Cortez". Parts of it are fun, and I think perhaps you'll like it. The secondpart is merely reference material but the journal I think is quite interesting. Sometime I hope we can do a similar job for the Queen Charlottes and the west coast of Vancouver Islands, "The Outer Shores".

I have been intending to send this for a long time, but many things have intervened. Lots of things have happened to me since the summer before last, things that prevented me from, among other things, coming up there as scheduled. Toni's (my former wife's) child Kay, then sick with brain tumor, got worse, died after grief and trouble. We since separated; both of us remarried. Toni is in Palestine as the wife of a professor of bacteriology.

If we have decent luck, I hope that my present wife and I can get up into your country again this summer. I am wanting to finish the survey started there and at Clayoquot, etc, several years back. A good many new species were taken and should be reported. Our photos up there turned out not too good, altho a few are reproducible. I am hoping that my present wife, a fair photographer, will get some good pictures up there this summer if we can make it. I wantparticularly to have a look at Masset Inlet, and the book shouldn't be published until we get in there, so I hope it can be this summer.

If you still have the bottles of formalin and alcohol stored away, I can use them if we get up there this year. If you've discarded them alfeady, don't be concerned, I can get more. This time I will hope that our chests come through on schedule; last time you will recall the steamship company mislaid them.

My first book, "Between Pacific Tides" is being reissued in a new edition by Stanford University. I hope to bring a copy up there with me to leave in the local library; it could be very useful. And I will hope to see you again, if not this summer then perhaps next.

Sincerely,

E. F. Ricketts

Each higher order, instead of ruling the ranks of the individual below, is actually ruled by them. Each rank is completely at the mercy of its subjects, dependent on their abundance or accessibility. All the schemes which our social order prides itself on having discovered have been in use by societies of marine animals far back into the dim geological past. The units comprising human society very commonly say one thing and be another. Not the least of the many values of marine sociology is the fact that the sea animals can be only themselves.

Ed Ricketts, Between Pacific Tides

Let's distract our insatiable curiosity for a moment with the simple contemplation of natural givens: subjects of wonder, charm, or horror, whose mystery seizes us when we seek to understand and identify with them.

Jean Painlevé, Mysteries and Miracles of Nature

All this is long over, and done with. The ring of living beauty drawn about our shores was a very thin and fragile one. It had existed all those centuries solely in consequence of the indifference, the blissful ignorance of man. These rock-basins, fringed by corallines, filled with still water almost as pellucid as the upper air itself, thronged with beautiful sensitive forms of life, they exist no longer, they are all profaned, and emptied, and vulgarised. An army of "collectors" has passed over them, and ravaged every corner of them. The fairy paradise has been violated, the exquisite product of centuries of natural selection has been crushed under the rough paw of well-meaning, idle-minded curiosity.

Edmond Gosse, Father and Son, 1907

ED RICKETTS AND JEAN PAINLEVÉ

Ed Ricketts stands as one of the most important marine scientists of his time in an era when the term ecology was still relatively obscure. He was officially an amateur, not supported by any school or institution, yet the breadth of his studies and investigations of the tidal regions on the west coast of Canada in the late '30s and early 1940s including Clayoquot Sound, Haida Gwaii, and the upper western shores of Vancouver Island has never been matched. To this day his research is still recognized and used worldwide in studies of coastal marine life, marine population fluctuations, and the effects of pollution, human settlement and weather patterns on the shape of these intertidal zones. Ricketts, whose most famous collaborator was author John Steinbeck (at least half a dozen of the well known author's literary characters are, in fact, based on the personality of Ricketts, most famously that of "Doc" in Cannery Row), published numerous books and articles related to his travels and research along the northwest coast of North America.

Ricketts' most challenging trek to the northwestern regions of British Columbia's coast would never be realized—mere months before he was to set off with Steinbeck on this journey in 1948, his life was cut short in a tragic car accident.

Jean Painlevé was a French science and nature filmmaker who primarily studied marine cultures and created techniques and devices allowing him to better photograph this often tiny and elusive sea-life. The filmmaking community at this time in France was still relatively small, and so Painlevé's work crossed over into zones of the surreal, documentary and new wave: he acted as ant wrangler in the Bunuel/Dali film *Un Chien Andalou*, wrote the text of George Franju's devastating *La Sang Des Betes*, and co-designed a camera harness with his wife that he eventually loaned to Jean Luc Godard for his filming of *Breathless*. His influence on both the avant-garde film scene and the scientific communities is unparalleled, and his films remain uncategorizable, falling somewhere between science, fiction, and the avant-garde. Painlevé directed over 200 science and nature films from the early '20s through to the '70s. His most well known films take us below the ocean surface: these are his intimate studies of the seahorse, sea urchins and crabs. Visually arresting and filled with wonder, they are captivating and awe-inspiring works.

Curiously, both these men were doing their most involved and inventive works at about the same time in history, separated by an ocean and a continent. Both intrigued and captured by the magic to be found in the sea, on the shores, and in the tidal pools, these were distinctive voices presenting wholly original ideas and strategies around their chosen passions. Painlevé

was challenging conventions of the cinema and fluidly crossing genres, while Ricketts pursued a rigorous yet free thinking strategy in his scientific research, completely outside and without the support of any academic institution. The following descriptions of their working environments give us some idea of the philosophies they manifested:

> [Upon visiting Painlevé's Institute of Scientific Cinema], located "Not in the theater where the seats are velvet and loges expensive, but in a cellar where one must pass a suspicious concierge, a bell announcing us below. On the street, there is no sign...The filming room offers a spectacle as colourful as it is diverse. There is something bohemian about Jean Painlevé's Institute, something fresh, youthful, spirited, bustling, and unconventional that challenges the mummified science of the Academy in the most insolent way. *-Léo Sauvage, Regards*

> His lab was a late-night haunt for a wide assortment of artists, writers and scholars, among them Henry Miller, Joseph Campbell and, of course, Steinbeck, who admittedly absorbed Doc's ideas like a sponge and turned him into the model for half a dozen characters in his books. (Ricketts "was part of my brain," the Nobel-prizewinning writer later said.) In the hazy predawn hours, over mugs of his home brew, Ricketts spouted poetry (Walt Whitman was a favorite), discussed modern art with ease and engaged in a game he called speculative metaphysics...Ricketts also waxed eloquently about the power of cause and effect in nature's life cycles. He saw a deep unity in elements that others might regard as incompatibly different.
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> *—Frederic Golden, Time Magazine*

The fact that these two men, so aligned in philosophy and oeuvre, never crossed paths, creates an imaginative gap that has provided me with the impetus for this project. **Intertidal** is in some ways an attempt to have them meet: to have the interests Ricketts wished to pursue on the west coast of Canada integrated with the creative direction Painlevé might have taken had he landed on this distant shore and continued to push the limits of his technical and avant-garde filmic approaches.

Intertidal is a research project involving a return to the regions first investigated by Ed Ricketts—Clayoquot Sound, Haida Gwaii (The Queen Charlotte Islands) and select locations on the west coast of Vancouver Island—to explore, research and film the tidal pools, intertidal zones and outlying regions in the spirit of both Rickett's research and that of his contemporary Jean Painlevé. Using both camera-based and cameraless techniques, the scope and materiality of both emulsion and environment are explored in the creation of a work projected as expanded cinema in a live performance using two 16mm analytic projectors.

STRATEGIES OF EXPRESSION

For many years I have been developing media-based strategies and methodologies involving the reinterpretation of found footage, experimental techniques of registering visual elements on film emulsion, and reconfiguring outmoded technologies and apparatus to reinvent and retool meaning. In working with found footage my desire has been to heighten and celebrate the original intention of a film “text” while simultaneously injecting it with new meaning borne from its reshaping and context. This has been in tandem with an immersive interest in hand-processing both refilmed found footage and original footage, and the manipulation of the physical film surface through scratching, colouring, tinting, toning and marking in various ways. Among my influences and inspiration are German filmmaker Jurgen Reble’s contemporary works and past performances with Schmelzdahin, the live film presentations of San Francisco collectives silt and Wetgate, the ongoing multi-dimensional films of Ken Jacobs, the conceptual and minimalist 16mm performance works of American artists Luis Recoder and Sandra Gibson, the personal and exploratory works of film artists John Price, Gustav Deutch, David Gatten and others. All impact upon and feed this ongoing fascination and focus. The result for me has been a performance-based body of film work which I have developed over the past decade. By their nature these works are in constant flux and “transformative” in nature. As the original film content gets damaged, worn, scratched, and broken, and the context of space configurations and placement of the piece and audience change, the performance remains alive to these shifts to highlight the ephemeral, fragile and fleeting nature of the moving image medium. My focus has long been the avant-garde/experimental/underground in both aesthetic and approach. The elimination of the film lab, standard projection practices, and a conventional relationship to the audience in my practice has all been in the service of rendering my films more intimate, more humble and more personal. A willing abandonment of "standards" in my approach and process, and with this the official methodologies we associate with “filmmaking”, is key. In this proximity to materials and their essential tactility, I see both the process, and the work I produce and present, as more akin to painting or sculpture than filmmaking.

PRECEDENT AND ANTECEDENT

For my last and ongoing long-format work *The Wooden Lightbox: A Secret Art of Seeing,* I manufactured a custom-built handcranked projector and handmade images, seeking both to reinvent the potential for an alternative means of expression outside of the bounds of "standards" and to explore formal elements generally associated with a structural film strategy to open up emotional and philosophical discourse. The shaping of this work is in both the process and the projection. With **Intertidal**, the mechanism and means of production also play vitally into the presentation, in this instance shifting more intimately into the natural world of marine/plant life. This delicate space speaks to the fragility both of the medium and the life forms explored**.** The investigation of natural materials both in the creation of handmade emulsions and the on-site manipulation of film-based materials will draw these two concerns together. Their ephemerality is primary: both fleeting and fixed.

My single channel piece *Underfoot* explores in a visceral, unadorned though abstracted manner some of the terrain I would like to investigate further, specifically non-camera techniques for capturing images, silhouettes, and photograms of the minutae found on these shorelines and tidal pools. Transposing the work from a backyard geography to a marine environment is a major shift in chemical, visual and philosophical potential. New territory will include using natural light variations over time, the fabrication of and experimentation with a variety of handmade film emulsions, the inclusion of camera-made imagery, studio innovations for filming marine life, and the exploration of a range of new image registration techniques.

The zones explored include the four tidal levels found in the intertidal zones: the splash, high tide, mid-tide, and low tide zones. Each of these is inhabited by a fantastic range of marine life, each facing very different survival challenges. This dynamic of visually captivating environments ignites a broad range of visual and metaphorical potential.

The spray or **splash zone** is an area that is rarely flooded, and only then with unusually high tides and large storm waves. This is a locale that experiences extremely slow growth and demands absolute stability. Vulnerable and subtly changing, this area was approached with delicacy, creating imagery that reflects this fragile balance.

In the **high tide zone**, marine life is exposed to both aggressive waves and extended exposure to air and freshwater rain (a potent hazard, as it lacks the salt of the sea). These key weather features—salt water, air, sun and rain water—are be explored chemically on the surface of the film in tandem with the sealife found in this zone: mollusks, mussels, limpets, hermit crabs, algae and many smaller creatures.

The **mid-tide zone** is covered and uncovered up to twice a day by tides, forcing the life in this area to adapt in order to stay alive both in and out of the chilling ocean water. The creatures and plant life react dynamically to these conditions to maintain moisture levels. When the tide recedes, sea anemones shrink and mussels snap their shells closed. Others, like sea stars, have an ability to withstand the air for long periods. When the tide returns, it brings sustenance, and the sealife once again emerges. These creatures and the ebb and flow of this environment will be reflected in the film.

The **low tide zone** is virtually always covered by seawater, and so the organisms found here tend to be less hardy and are unable to bear much sun and air exposure. A relatively unwavering area, it features the greatest assortment of marine life, with seaweed proliferating and providing hiding places and shelter for more fragile creatures like urchins and sea slugs, as well as a diversity of crabs, shrimp and smaller fish. When the tides drop very low, some of these delicate animals end up exposed and unable to recover—jellyfish are commonly found dead and baking in the sun. A study of this area includes both water-immersed camera work, the water surface itself, and rare exposed beach ecologies at very low tides.

In the spirit of both Painlevé and Ricketts, each of these zones is filmed and explored with an eye to highlighting the ecology of these spaces: the relationship of organisms to one another and to their physical surroundings. It is worth nothing that both were keenly aware of the dangerous tendency to personify all things outside the realm of the human. And while the desire to anthropomorphize is a strong impulse, Ricketts and Painlevé temper it with a very clear understanding that not all things translate to the human. It is here where I find some of the most interesting and unsettling dynamics: "...it is our familiar concept of the “human,” along with an arsenal of related categories, that can suddenly appear alien or even suspect, leaving us with a haunting sense of our own strangeness even as we gape in wonder at nature’s bizarre marvels". (Ralph Rugoff, Fluid Mechanics)

PROCESS

All of the tools I have used—a handcranked 16mm camera, handmade and hand-processed emulsions, cameraless recording methods, and two analytic projectors in the final live presentation—seek to de-anchor the standard assumptions made in audience/author and subject/material relationships. The undoing of a habit of cinematic spectacle and the act of visual consumption requires a return to that first moment of proposed application and the potential that existed in that moment. Is it possible to re-forge this relationship by throwing these habits into question? Or is the moving image inseparable from the culture that produced it? My experience is the former, where an exchange and immersion experienced in the audience-filmmaker-materials dynamic creates a profound and often moving experience.

Practically, filming included location shooting on the same coasts, estuaries, headlands and open beaches that Ricketts himself visited some 60 years ago, as well as in-studio shooting, much in keeping with Painlevé's inspired methodologies. The lenses and techniques required to film some samples of marine life demand eda controlled environment and specialized equipment (microscopic lenses, animation stand, etc). I took great advantage of the educational and visual resources available through the Vancouver Aquarium and the Ucluelet Aquarium—both their living exhibits and their educational spaces—where I didn't have to risk any damage to marine life. **Any work I do in my own studio space did not involve living marine samples, as damage and upset to an eco-equilibrium is too risky.**

EXPLORATION

With **Intertidal**, I have pursued both distinct and intersecting areas of exploration: formal (structural, camera and projection apparatus), physical (celluloid creation, exposure and manipulation methodologies) and subject (intertidal zones, marine life and landscape). Footage has been photographed and processed in a variety of ways, including both cameraless as well as handcranked camera methods, hand-processing (black & white with a variety of techniques, cross-processing, tinting and toning), and subtle though highly specific physical alteration of the film surface. Each zone of inquiry demanded time, experimentation, precision, and commitment. And while I have explored hand-processing and hand-made emulsions with my performance work in the past, this new level of investigation and experimentation moved beyond my current practice and introduced new potential and technique.

SOUND DESIGN

Sound design for this piece is a combination of environmental sounds gathered from the filming locales in combination with the ambient sound compositions by Scott Morgan (loscil), a friend and collaborator. His work is evocative of and located within the same geographic landscape and focuses frequently on oceanic zones. Sound elements have been produced both in the field and by manipulating existing sound snippets using audio software. My audio collaborations and solo sound compositions in the past have each sought to integrate sound cycling, counterpoint and silence to locate the audience within the work. The sound here differs primarily in its focus on restraint. Environmental and technology-based sounds continue to be primary, evocative of times and places as well as invented space. And while this is largely a "silent" film in many ways, the audible rhythms of the analytic projection itself also plays a central role in drawing attention to live film speed variations, creating rhythms and counter-rhythms, as well as foregrounding the space between apparatus and audience. Soundtrack elements subtly introduce central motifs and repeating patterns. Muffling, distortion, and disassembly of sounds parallel the images as elements are deconstructed and reconstructed.

Sound elements are not located on the physical film itself. Audio is triggered through a separate format on digital audio device, controlled during performances.

WHAT WE SEE: LIVE PERFORMANCE

This project's central visual motifs are the geography and atmosphere of the marine spaces explored, and the visual elements which inhabit it. The 16mm analytic projectors and myself inhabit the same space as the audience. Images build upon one another as the films unfold, sometimes separating into two screens, other times coalescing into one doubled image, creating a cumulative effect and impact where the viewer explores meaning and is drawn into new sites of potential as the piece progresses. This potential—personal, political, visual and ecological—ranges from the concrete to the entirely philosophical.**Intertidal** is informed by Ricketts' and Painlevé's high level of engagement with the material of this work; their—and my—enthusiasm around the beauty and abstract nature of marine life; the reverberations felt around the fragility and ephemeral nature of the subject and materials; the irreversible decline and disappearance of sealife in the world's oceans due to industry and ignorance. All are primary elements integral to a project of process and exploration.

EXPANDED CINEMA

Expanded cinema invites an intimate and symbiotic relationship with an audience that is created through the presence of the author as well as the flexibility of a live environment. Furthermore, the transformation of the piece—both within a specific presentation and over the space of many shows—is inevitable and necessary. The film performance can take on qualities specific to a time and space (screening environment), benefiting from this ongoing potential for growth and development. The ephemeral nature inherent to expanded cinema moves it away from the "precious object" syndrome of fine art into a more transformative shape. Instead of reducing the film to a static and finite entity, it encourages an ongoing dialogue with a living and always changing vision. This project proposes an intimate cinema suited to small spaces and engaged audiences.

The use of a 16mm handcranked camera as a part of the production process, along with environmentally affected film stocks, and the final projection using two 16mm analytic projectors are motivated in several ways. In the period during which Painlevé and Ricketts were working,16mm was a format that was used more frequently by serious amateurs and filmmakers in the field of science and nature films by virtue of its portability and cheaper film stock. It is therefore a conceptual conceit for me to use a format that jibes with the kind of film I am both highlighting, remarking upon, and transforming. In actively manipulating the materials as they are presented to an audience, I am altering the means of image delivery in order to pose questions about the relationship to the material for both the maker and the audience, altering and disrupting expectations in terms of pacing, anonymity, scale and spectacle. The analytic projector plays into this conceit as well, as this device was originally intended for the study of the very kinds of material I am presenting, but in a scientific environment rather than an artistic one. The ability to slow images down or freeze them for study and analysis is very much in keeping with the drive behind this project: an artistic approach to the beauty and philosophical potential to be found in a scientific endeavour. The camera I have chosen for shooting is a Cine-Kodak Model A - the first 16mm camera ever manufactured (in 1923), as well as the first camera manufactured by Kodak. The projectors I use for this project are Lafayette-branded 16mm analytics, originally based on the 16mm Kodak Pageant projector-build and enhanced with basic circuitry to allow speed control, freeze frames, and reversal of film direction. My past work with these kinds of projectors has included *Parallax*, as well as my shorter works *Periphery, Part 1* and *Goldenleaf*.

THE SHAPING OF INTERTIDAL

Below I have outlined just a few approaches, techniques, and visual materials that play a part in the shaping of **Intertidal**, keeping in mind that research, field work, and experimentation with materials all played primary roles in the finished piece. It is extremely important to note that these are inspiration for abstract representations, and not documentary exposition. Furthermore, they represent only a sampling, as other sources and variations on these themes came with further research, on-site epiphanies and experimentation.

MATERIALS EXPERIMENTS

1) Laying down and securing raw film stock on the beach at low tide in the dark of night, leaving it to rub, shift and get covered by seaweed, jellyfish, crabs, etc. as the tide comes in. Within this experiment, there will be a determining of the light exposure times necessary to create a series of successful film strips that are gradually exposed in pre-dawn light, then retrieved and processed.

2) Directing light through semi-transparent coloured sea life to expose colour film stock beneath—soft-edged jellyfish, seaweed, coralline algae, and sea anemones will all net very different shapings and colourings.

3) The placement of various small sea plants and life upon the surface low ASA film stock to create hard-edged photograms.

4) Observation and study of the effects of freshwater (rain) when the tide is out on seawater soaked film stock.

5) The use of seaweeds acquired on site as a bonding agent in creating handmade emulsions (these replace and/or supplement animal-based gelatin).

6) The etching of trails and tracks by sealife on softened film emulsion ie. sea slugs, sea anemone tendrils. Experimenting with the registration on various emulsions of the natural actions of specific marine environments: rubbing, shifting, scratching, etc.

7) The chemical potential to be found in various components of the ocean and sea life (incidental secretions, slime, sea water, etc) and their impact on the film emulsion.

TECHNIQUES

1) The use of two 16mm analytic projectors for a live two-screen presentation.

2) The use of a Cine-Kodak Model "A" handcranked camera for shooting.

3) The development of underwater filming mechanisms and apparatus—camera housing, automated filming with lights in darker sea zones, suspension and securing systems, etc.

3) The development of studio-based filming systems as well as the use of the Vancouver Aquarium's facility: thin plate saltwater backlit and frontlit aquarium, microscopic lens attachment, intermittent flash systems, long-exposure high ASA film stocks (for very slow moving microscopic marine life), etc.

SUMMARY

This film performance seeks to create a genuine engagement with its audience, confronting convention, expanding the possibilities of the medium, and continuing to rework our collective moving-image language.

It surprises with the striking qualities of its images: their truth, their ruminative nature and their ability to pose larger questions.

An intertidal zone for the cinema, a marine ecology for emulsion:
teeming and tenuous, fleeting and alive.

SOME RESEARCH RESOURCES:

Science Is Fiction : the films of Jean Painlevé / edited by Andy Masaki Bellows and Marina McDougall, with Brigitte Berg ; translations by Jeanine Herman.
Cambridge, Mass. : MIT Press, 2000.

Maverick Filmmaker Jean Painlevé / Brigitte Berg, Journal of Film Preservation, Issue 69, 2005, pp. 12-28.

Between Pacific Tides / Edward F. Ricketts, Jack Calvin, and Joel W. Hedgpeth.
by Ricketts, Edward Flanders
Stanford, Calif. : Stanford University Press, 1985.

Beyond the Outer Shores: the untold odyssey of Ed Ricketts, the pioneering ecologist who inspired John Steinbeck and Joseph Campbell / Eric Enno Tamm.
by Tamm, Eric Enno.
Vancouver : Raincoast Books, 2004.

The Log from the Sea of Cortez / John Steinbeck ; introduction by Richard Astro.
by Steinbeck, John and Ricketts, Edward Flanders.
New York : Penguin Books, 1995.

Sea of Cortez; a leisurely journal of travel and research, with a scientific appendix comprising materials for a source book on the marine animals of the Panamic faunal province.
by John Steinbeck and Edward F. Ricketts.
Mamaroneck, N.Y., P. P. Appel, 1971 [1941]

Father and Son, A Study of Two Temperaments
by Edmund Gosse Heineman, 1907.

Gwaii Haanas Marine News, the monthly newsletter for the proposed *Gwaii Haanas National Marine Conservation Area Reserve* (the first Federal Marine reserve of its kind in Canada), produced by the Haida Nation and the Government of Canada. Newsletters date from January 2009, and are ongoing.