Elizabeth Hubler-Torrey
MFA Thesis Statement
In Between Dichotomies

My body of work is based on the premise that all life on earth shares some of the same chemical building blocks of stars. Using an interdisciplinary approach and the collaborative science of astromicrobiology as a catalyst, my work explores the interrelatedness of various environments and living organisms by investigating the question: what would interdisciplinary research results look like? To answer this question, I visually hypothesize about new areas of scientific research and how it could illuminate the study of the creation of living organisms and life on Earth. Scientists have found chemicals that exist in the formation of planets are the same ones necessary to promote the growth of single-celled organisms. By reinterpreting star formations, planetary landmasses, and underwater worlds as an invented new landscape or habitat, I then use these environments as a backdrop for amoebas, single-celled organisms, microbes, bacteria, fungi, fossils, and sea life to represent the interrelatedness of all living creatures.

The microscopic and macroscopic worlds of science and exploration are reflected in my work with what can seem like strange couplings of very different natural elements that would not normally be found together in nature. The interplay and interchange of microscopic and macroscopic natural elements, leads to a hybridized feel in my two-dimensional works that are intended to look “other worldly” and reminiscent of organisms and geologic processes. In my process, I macro-size microscopic organisms and micro-size land satellite photography—flipping the perspectives and cropping out areas to show only sections or portions of membranes, skin, secretions, growths, outer shells and casings. While juxtaposing the previously mentioned with reduced samples of land formations, water striations, mineral accumulations, ice lake remnants, that take on an organism-like shape or outline.

In my work the close proximity of contrasting elements is coerced together to create a type of visual foresight. I am not a scientist, but I am intentionally combining ingredients in an attempt to put forth an observable conjecture as one of many possible tracks of scientific discovery.

The versatility of wax and oil paint allow for technique pairings like atmospheric layering and glazing and at the same time utilize the wax to build up areas of relief and impasto that have an internal luminous and transparent quality inherent to the encaustic. I also employ overlapping colored wax to build up textures, ironing with heat, pouring, scraping, and staining the wax with oil paint, and incorporating pastels, ink and watercolor. From constantly exploring a variety of encaustic techniques, I have recently moved into more three-dimensional pieces that perform two functions—instigating high relief areas in my two-dimensional works and as complete sculptures that capture their own presence.

An interdisciplinary approach

My work is inspired by the contemporary, collaborative venture happening in different science and humanities disciplines. Overlapping endeavors in the sciences, such as molecular biology, physical chemistry, and biophysics, run concurrently with the trend blending of art and science. So to reflect the intermingling of what was previously separate academic disciplines, many of my pieces are inspired by images from NASA's public domain database of Hubble deep-space cosmology, satellite photography particularly from Phoenix, Viking and Curiosity missions to Mars, and Ames Research Center's public domain image gallery. My research has also included imagery from the National Science Foundation's multi-media gallery, photography of deep-sea and fresh water biology and microbiology. During my search for inspiration I was attracted to organisms only seen with microscopes. These entities were immersed in ambiguous

surroundings, that are visually similar to images of deep-space and deep-sea photography. These unidentifiable spaces became environments to create new habitats for recently discovered living entities, many of which have not been seen before by humans.

Blending art and science

Early Enlightenment philosopher Francis Bacon made an unintentional prediction by rejecting the stark divisions in humanities and sciences while calling for the different disciplines be "open ended and constantly evolving" (Wilson 26). His notion of open-ended learning, foresaw the current trend toward interdisciplinary research. Bacon advocated for people to actively engage in all the elements of our world and to not limit ourselves with induction and to use the emotional experience with the arts to discriminate the knowledge from the findings in the sciences. He wrote that intermingling disciplines could be a model of "unified learning" that would help propel humanity forward for "the improvement of the human condition" (Wilson 27).

Recent brain research shows similarities among artists and scientists. Even though they exercise creativity in different ways, both groups generally have a fundamental and mutual reliance on creativity. Both groups invent ingenious speculations and bring them forth to research new ideas, either in the laboratory or on canvas. According to Richard Dawkins, the blending of art and science "contributes to a spirit of wonder" for the benefit of society (27) and carries an unpredictable added value for the future.

In addition to the societal benefits of blending art and science there is a psychological benefit because it reconnects us with nature and each other. "…(T)he arts provides a much needed balance for the knowledge gained through the exercise of our intellects, knowledge that tends to alienate us from the rest of nature and to create feelings of anxiety. The findings of science can intensify a painful awareness of our less than perfect temperaments, of our finite

existence and of our chaotic environment. These findings improve our chances of survival on life's journey but art soothes us, supports us and inspires us along the way" (Kaplan 17).

Scientists, in simple terms, measure what they can perceive, and research what current technology will facilitate. As changes in technology occur and upgrades our ability for research, then science changes over time—it is not absolute and not stagnant. What is revealed through research and becomes generally accepted one year might not be the same accepted knowledge years from now. This constant reassessment is also a metaphor for the fluctuating and necessary conditions and elements for life. That is why as humans we must become more discerning of our actions and its impact on our vital ecosystems. This thought extrapolated further, leads to questions of morality and spirituality and our collective responsibility to our ecosystem.

As science and technology progresses, society has not acquired the ability to process the new knowledge at the pace its launched into culture, therefore we are reliant upon artists to acquire, process, disseminate, compare and contrast, problem-solve and pose possible solutions to environmental issues. Historically, artists have been at the forefront of pushing cultural and societal change by reflecting new information and shifts in new knowledge through illustration, writing, print, photography and painting.

Today's eco-artists

The philosophical underpinnings for political awareness in environmental art began with the concepts put forth by Herbert Marcuse. As a member of the Frankfurt School he proposed the idea that there is an inherent lack of social bonds in advanced capitalist societies which does not provide people with a deep relational aspect to our awareness of nature. He states that we "deny the natural world an existence in its own right and relegate the idea of liberated nature to poetic imagination" (Randerson 443). He states we cannot perceive and understand what we do not

think of as having an inherent validity. Which I believe would lead humans to be actively engaged in preservation and consider nature as something unalterable. According to Marcuse, sensation is the biological experience that connects us on a physical level to the elements in nature and each living thing.

Currently eco-art or ecological art is defined as "grounded in an ecological ethic and systems theory" (Wallen 235). For the artist it becomes an investigation between the interrelatedness of physical, biological, cultural, political, historical, and westernized systems with aspects of how those systems affect ecology. The purpose of environmental art is to propose solutions and new connections through art and science interaction, interdisciplinary collaboration, behavior change using sensory experience or audience participation, aesthetic investigations into systems theory, visualizing the relational aspects of all living creatures, interrelatedness of nature and human-made systems, and institutional critique.

Contemporary eco-artists are taking a more serious look at interrelatedness of art, science, and systems theory to hypothesize and put forth solutions to our environmental problems. They emphasize relationships with other disciplines and within systematic organizing structures inside our culture and society. This was first proposed by Marcuse, who suggests that when we are aware of our interrelatedness, it is a powerful way to initiate change in society. He argues, "sensation is the process that binds us materially and socially to the world" and coined the term the "radical transformation of society" (Randerson 443) from this perception-based process.

Environmental art can also transform the audience into activists themselves. By purposely crafting human behavior while actively participating in or making the artwork, and nurturing the audience to think of the environment as a "nature-culture hybrid" (Ginnach 126) that helps the audience addresses issues with humans' interaction with the ecosystem.

Activism

With my recently created sculpture, I take an activist stance and would like post-humanism inform my premise. The deconstructionist philosopher Jacques Derrida suggests that if we are not to differentiate between different types of "animals" then we must include microbes, arthropods (Derrida, video) along with humans. I believe this questioning, leads one to consider a non-differentiation idea that puts all living creatures on an equal status, that then creates a pluralistic stance. An idea which I believe should also be viewed as a network of relationships. He suggests humans break or release the "value hierarchy" (Calarco 110) that is a perception set in place by humans to justify difficult positions over and against animals, one of many of these hierarchies which need to be dismantled. It will be difficult to transform our thinking that has been based in extreme dichotomies. Derrida asks us to consider a new ethic based in an anti-anthropocentric model of thinking, free from past limitations which will be needed to decide moral and legal questions moving forward.

The current ethical mind set of using a value hierarchy lays somewhere in between two ends in an oppositional binary structure. For example, notions of animal harm and a need for species preservation. Whether the animal is in a controlled environment or used to being in its natural habitat. Humans also are keen to notice similarities with animal and human behavior, but at the same time both have strong differences and different needs. Our project is to re-think our differences in a "non-binary" (Calarco 105) manner moving forward.

Kelly Oliver adds to this idea by reshaping our awareness of the sameness and differences between animals and humans which she asserts can create new opportunities for "relationships and response-ability" (Oliver 21). If animals and humans share equal status and are immersed in a mesh of complex relationships (through behavior) and interrelatedness (the physical), then there is no hierarchy to utilize to justify extermination, abuse, or degradation of

others or us. I propose, that because of these complex, natural inter-relationships between all living beings, those relationships should be preserved. Then the question becomes; why are we destroying it? Or think it's acceptable to destroy parts, certain living things, and not others?

For example, in the installation piece *Ocean View* I am dealing with the problem of expanding ocean acidification and the destruction of sea animals, in this case corals and anemones by bringing their degradation from being bleached through acidification into public view. I use pharmaceutical grade, naturally bleached beeswax as a symbol for the physicality of bleached sea animals and place those animals next to the same types of fully painted animals to portray, healthy, thriving sea life. The use of acrylic boxes to incase each sculpture is a prediction of a possible future for these animals—that if we continue on the same path, the only specimens left to look at will be ones contained in museum display boxes set on a table in an institutional space.

Through my art work I am suggesting that we actively shift our perceptions based on our "symbiotic" relationship (Grandin 297) with animals. I am hoping to invoke a behavioral or relational reaction of inter-connection and at the same time a concern with the current state of animals. By using sculptural installation as the mechanism, I am intentionally lifting the status of these "animals" to something humans can perceive and experience. My sculptural pieces perform the task of being a stand-in for the actual sea animals. My hope is to encourage a feeling of inter-relatedness and proximity not usually felt with such sea life since it is not a part of our everyday world.

My sculptural work is situated between a "nature" based artifacts and actual objects from nature. The sculptures are particularly seen as naturalized dioramas, but are also compartmentalized pieces incased in a controlled environment and on the other hand reference actual animals and organisms which originated in nature for their existence. Another dichotomy

is one of the subject matter itself, by the use of “deadly animals,” such as corals which can be lethal to humans and in contrast are beautiful and wondrous to perceive and artistically created with a material that is inherently delicate and precious like beeswax. These works are presented as faux natural objects, crafted and presented as a museum display with a chosen arrangement by a human. Other dichotomies are also present with the use of beeswax as a material because it lies between exchanging subject matter and objects, alternating macroscopic and microscopic perspectives, and as a skin to incase objects or a place to layer subject matter.

The beeswax signals a metaphor because of its transformative nature and acts as an early-evolutionary transaction that evokes geologic, biological and chemical processes. Beeswax is also a material that expands to function on duplicate levels as an inter-changeable device from low relief to sculptural objects that gives the medium its versatility and numerous options for adaptation and variety of uses artistically.

Because wax can mimic changeable states of matter, the properties can flow between to extremes based on conditions. Beeswax has the capacity for high plasticity at relatively low temperatures. For example, one of its many properties is that it will soften and become sticky when held in hand and at the other end when cold, becomes dry and granular like and hard therefore susceptible to cracking. Heated to over 180 degrees, in its liquid state is fluid and viscous and can be poured or brushed smooth then buffed to an almost mirror like finish, but if allowed to slightly cool is transformed into a resinous, gelatinous paste. At room temperature it can fracture and break easily but have tenuous strength and durability. It does not degrade over time but will easily fluctuate with slight changes of temperature. Its other properties are it can be pasty, clingy, sticky and gummy when slightly warmer than room temperature. It naturally looks deceptively sensuous and can evoke a desire to experience tactically, to smell it because of its natural fragrance, but gives off toxic vapors when heated past 220°. While in its pasty state, the

application of accretion and adhesion can come into play. Accretion is act of collecting material through gravity by using the stickiness of slowly cooling wax to build up high texture. A technique that looks like a rough rocky surface or something with a geological or tectonic feel.

Another facet to my work is that science mainly uses a reductive process to answer questions, I am turning those processes around and combining those reductive pieces into an additive process that propels a work of art. While the two-dimensional works start out completely representative to the scientific-based reference material, there is a point in the creation process, after having used the research imagery to inform texture, subject matter and composition, I move away from those influences and let the material qualities of the wax and aesthetic concerns guide the direction of the piece and take over for the rest of the journey.

Although science is reflected in art and art has informed science since the Enlightenment, my work is not doing anything historically new by trying to combine art and science. But I am attempting to craft works from current research results into not-seen-before combinations and use new imagery not typically considered traditional in the fine arts. Because of the internet and the trend toward open-source information from important and potentially life-changing research, has provided an avenue for inspiration, learning and artistically tracking the changes in scientific discovery.

My hope is this body of work will resonate with the viewer a feeling of the primordial and interconnectedness with all forms of life, the preciousness of our own environment, our responsibility to the ecosystem and “animals” and our interrelatedness and interdependency on one another to help change and guide our interactions while we share the planet. By using a combination of imagery from scientific research, I am exploring the mysterious to cast a new light on what scientists and humans have yet to discover about each other and the environment.

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Image List
Elizabeth Hubler-Torrey

Title: *Phenotype I, II, III*
Date: 03/2012
Size: 3 - 13" x 33" x 2" cradled panels
Media: Encaustic, cold wax, galkyd and oil on birch

Title: *Parva Specimens (Small Specimens)*
Date: 04/2012
Size: 12 - 12" x 12" x 2" cradled panels
Media: Encaustic, cold wax and oil on birch

Title: *Parva Specimens (Small Specimens) - detail*
Date: 04/2012
Size: 1 - 12" x 12" x 2" cradled panels Media:
Encaustic, cold wax and oil on birch

Title: *Uno Cellularibus Microbes (Single Celled Microbes)*
Date: 12/2011
Size: 3 - 10" x 10" x 0.5" panels
Media: Encaustic, cold wax and oil on gypsum plaster

Title: *Trilobite*
Date: 04/2012
Size: 1 - 12 x 12 x 2" panel
Media: Encaustic, oil and pastel on birch

Title: *Mare Creaturis (Sea Creatures)*
Date: 12/2012
Size: 3 - 12" x 12" x 2" cradled panels
Media: Encaustic, watercolor, oil pastel and ink on birch

Title: *Aqua Pluvia (Rain Water)*
Date: 11/2012
Size: 3 - 12" x 12" x 2" cradled panels
Media: Encaustic, cold wax, galkyd and oil on birch

Title: *Sinularia Dura (Cabbage Coral)*
Date: 03/2013
Size: 12" x 12" x 6"
Media: Encaustic and pastel on birch

Title: *Arcyria Stipata (Slime Mold)*
Date: 04/2013
Size: 12" x 12" x 8"
Media: Encaustic and oil on birth

Title: *Martis Lorica I (Mars Loricifera I)*
Date: 11/2013
Size: 10" x 30"
Media: Encaustic and oil on birch

Title: *Martis Lorica II (Mars Loricifera II)*
Date: 04/2014
Size: 11.75" x 31.5"
Media: Encaustic, oil and pastel on birch

Title: *Martis Lorica II (Mars Loricifera II) - detail*
Date: 04/2014
Size: 11.75" x 31.5"
Media: Encaustic, oil and pastel on birch

Title: *Sea Anemone*
Date: 04/2014
Size: 10" x 10" x 10"
Media: Encaustic, pastel and oil on birch

Title: *Oceanus Transpectus (Ocean View) - detail*
8-piece sculpture installation (each 8" x 8" x 8")
Date: 04/2014
Size: (table) 23.675" x 47.25"
Media: Encaustic, pastel and oil on birch with acrylic