DePaul Art Museum
Climate — of — Uncertainty
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At first glance the issue of global climate change does not seem entirely at home in the setting of an art museum. Scientifically complex, politically freighted, and linked to a host of intractable economic and social factors, the topic seems to defy the comprehension of any single individual. It interests an astoundingly long list of academic disciplines, from ethics to vulcanology. Any approach to the subject runs immediately into conundrums that pit developed and underdeveloped nations against each other, conservationists against manufacturers, the future against the present. We humans, undeniably the agents of much atmospheric change, cannot agree about how to define the problem, let alone how to fix it. It may be useful, then, to consider climate change in visual terms, from straightforward documentary photography to more allusive and evocative representations of tensions between human activity and the natural world. Artists, like the rest of the planet’s inhabitants, experience the consequences of climate change, and may help the rest of us imagine futures, from apocalyptic to rebalanced.

Laura Fatemi, associate director of the museum, has organized the exhibition, locating a remarkable number of artists engaging the issue, and making judicious and often inspired selections of work. In organizing the project we have had the generous assistance of faculty, students, and staff of the Environmental Science and Studies Department at DePaul University, especially from Judy Bramble, chair; and our faculty advisors Liam Heneghan, Randy Honold, James Montgomery, and Mark Potosnak; and students Haley Graham and Jonathan Eiseman. We also thank Doris C. Rusch and Robert Steel, faculty members in the College of Computing and Digital Media, and student Rachael McDonald, for their work on the carbon cycle video. Dr. Farrah Fatemi of Villanova University served as scientific advisor to the project. Colleagues at other museums kindly facilitated loans: Saralyn Reese Hardy, Stephen Goddard, Kate Meyer, and Janet Dreiling at the Spencer Museum of Art, and Natasha Eagan and Kristin Taylor at the Museum of Contemporary Photography. Finally, we thank the artists for their committed explorations of difficult issues, and for their generosity in lending work for display.
We are beginning to see, feel and experience the effects of these changes to Earth’s climate on a visceral level. Climate change is real. One of the greatest challenges human society will likely face in the coming decades and century is how to strategically plan for and adapt to the uncertain effects of climate change.

Since preindustrial times, global average temperature has risen approximately 1.6 degrees Celsius (3 degrees Fahrenheit), and atmospheric concentrations of CO₂ now far exceed the natural range over the last 650,000 years. Throughout the world, these changes in Earth’s atmospheric chemistry and temperature can have direct and indirect consequences on the global economy and human welfare. Climate models project that hurricanes will become increasingly powerful and more frequent in the coming decades, which could cost the United States billions of dollars in damage to densely populated Atlantic coastal areas. Droughts in Somalia have caused starvation and set off a massive human migration; the American Southwest has suffered a record number of forest fires, and England just experienced a record-breaking wet and cold summer that reduced agricultural production.

The gravity and complexity of the problem are daunting, but the possible consequences of inaction are too monumental to ignore. For instance, if CO₂ emissions increase over the next century, sea level could rise as much as six feet in certain areas of the world, potentially wiping out entire coastal cities. We cannot afford to delay the reduction of greenhouse-gas emissions.

Is it hot enough, cold enough, wet enough, dry enough?

What seemed like alarmist declarations about the implications of climate change on our everyday lives a few years ago have become a part of regular water-cooler and dinner-table discussions.
The urgency of the issues is the impetus for this exhibition, *Climate of Uncertainty*. Even though most of us are aware of the climate debate or problem at some level, we often choose to ignore it. But this seeming lack of interest may in fact represent an absence of cultural strategies for individual or community responses. The premise of this exhibition is that artists, whose tools for communicating are visual, emotional, visceral, and intuitive, can help build a public movement and engage audiences using a fresh vocabulary. Each artist in the exhibition builds a conversation and interaction with the viewer, and they challenge us to action. Scientists are ringing the alarm bells on topics such as climate change, species loss, industrial pollution, deforestation and mass consumption; artists are doing so visually and experientially. The exhibition presents the work of visual artists, photographers and installation artists engaged in long-term projects that address aspects of the human role in environmental degradation. Their striking visual images serve not only to highlight the world around us, but also help us to see the destructive path that we have intentionally or thoughtlessly taken.

Photographers in particular play a critical role. Inherent to the medium of photography is the ability to document a perceived reality. This authenticating aspect of photography led Chicago artist Terry Evans to Greenland, where she worked with scientists from the University of Kansas who were measuring glacier melting. Daniel Shea traveled to the Appalachia region of West Virginia and Ohio to witness the highly destructive process of coal extraction known as mountaintop removal. And Christine Seely’s photos reveal the extravagant energy consumption of artificial lighting in the world’s largest cities.

Photographic images can strike a powerful chord with the viewer and this ability to reveal or illuminate what we might never get to see is central to the work of photographers such as Edward Burtynsky and Chris Jordan. Jordan’s horrific, disturbingly Goyaesque images of albatross carcasses filled with plastic refuse from the Pacific Midway atoll highlight issues of plastic consumption and its devastating consequences for wildlife.

Conversely, Edward Burtynsky, who is known for traveling to remote locations across the globe to photograph often impenetrable and inaccessible sites, employs photography’s aesthetic landscape techniques in his provocative and seductive images of industrial waste piles and heaps of metal debris. In “Manufacturing #11, Youngor Textiles, Ningbo, Zhejiang Province, China,” the sheer number of workers in regimented rows reveals the enormity of operations, and the mass scale of human consumption.

Both Toshio Shibata and Allison Grant address the landscape, even those altered by humans, in aesthetic terms. In Grant’s series *Unsoiled*, she replicates wilderness images found on the internet by repurposing found refuse materials such as plastic packing and nylon webbing into landscapes that are familiar yet disquieting. The process, although veiled and discreet, is apparent on close exami-
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nation, making the illusion of nature an eerily apparent construct. Toshio Shibata documents large-scale infrastructure projects such as damming, highways, and bridges, finding abstract qualities of the landscape and making no overt environmental critique. He does, however, suggest that human intervention in nature can be guided by a more harmonious Japanese aesthetic.

In the essay that follows, DePaul University environmental scholar Randy Honold explores our relationship to technologically-derived images from a philosophical viewpoint; he suggests that images are deeply rooted into our collective psyche and influence and motivate agendas and perceptions even as they explain our relationship to the environment. To Honold, photographs by artist Toshio Shibata offer an alternative approach where human otherness or “hybridity” is reflected in depictions of altered landscapes, suggesting images play a role in service of understanding our human nature and hybrid existence.

Our interconnectivity with nature is a dominant concern for many artists in the exhibition. The swirling, debris-filled waters in Marilyn Propp’s “Deep Sea Drifters II” woodcut help us visualize ocean pollution and species depletion due to over-fishing and industrial waste. Maskull Lasserre raises concerns of species loss on land: deforestation and subsequent altering of life cycles are addressed obliquely by charred wooden crows in his installation “Murder.”

Installation pieces offer the museum viewer a participatory, multisensory involvement by creating physical surroundings using materials, sound, light, and other technologies that engage our whole being. This activated spectatorship is a particularly dynamic component in the works of Sabrina Raaf and Sonja Hinrichsen. Both use technology to cast the audience as active players. Sonja Hinrichsen’s four-channel video installation takes the viewer on a journey down the Yangtze River in China. Casting a shadow on the walls, the viewer becomes superimposed on the river itself and the sounds of a boat engine humming, water thrashing and seagulls squawking heighten the sensation of virtual travel. But our boat trip takes us to a site of environmental destruction: one of mankind’s largest engineering projects to date. The Three Gorges Dam, fourteen years in the making, completely changed the ecosystem of the region. It destroyed cities and ancient archaeological sites, dislocated 1.3 million people, and contributed to the extinction of species such as the pink Chinese dolphin. The project was so enormous that when the basin filled with water, satellite views of the earth recorded a wobble in its trajectory.

The environmental effects of climate change are not always so visible or apparent compared with monstrosities such as the Three Gorges Dam, and sometimes we may understand an issue in scientific terms but not in experience. For example, the carbon (C) cycle is a complex chemical cycle in which organic matter is transformed from one form (such as fossil fuel) to another (such as gaseous CO₂). Humans are an integral part of the C cycle; our bodies are made up of about 20% C, and we constantly emit CO₂ as a byproduct of our metabolic process, as do most
other living organisms. The natural processes that control the total amount of carbon emitted into the atmosphere have been in a relatively steady-state balance with hydrologic and geologic processes that absorb and store carbon for over 10,000 years. Fossil fuels are C compounds that are stored deep within the Earth’s crust, but human extraction of fossil fuels has released this long-buried C at a rate much faster than would occur by natural processes. The burning of these finite resources has increased CO₂ levels to an unprecedented level and is the major contributor to the global temperature rise. Yet we seldom think of ourselves as producers of CO₂, and thus contributors to the problem. Sabrina Raaf’s robotic machine “Grower” gives the viewer a new role as unwitting participant by the involuntary act of breathing. “Grower” calculates the carbon dioxide levels in the gallery space, and translates this measurement to visual form by strokes of paint on the gallery walls. The interaction of machine and human produces a concrete representation of the abstract concept of carbon dioxide, an invisible gas that on the one hand is essential to life yet on the other hand is changing our climate rapidly.

How will humans tackle such staggering problems as climate change? Liam Heneghan, Professor in Environmental Science at DePaul University, probes our relationship to the ecological system in his essay “Art in Irrevocable Times,” stating “Earth can be conceived of as the biggest work of art of all, constantly undergoing change but, until recently, keeping an overall balance.” Returning our environment to state of equilibrium will require shifts in attitude and behavior.

How to engage on an individual level is tackled by Marissa Benedict, who calls herself a citizen scientist. Motivated by research into fossil fuel alternatives being developed by private agencies and the government, she explores the process by conducting experiments herself and creating the fuel in her studio and in the gallery. Perhaps individual experimentation can stimulate creativity. Can one person make a difference?

Fifty years ago Rachel Carson brought the problem of environmental pollution to public attention with her seminal book *Silent Spring*. Carson’s exposé of the effects of synthetic pesticide use on human and animal populations was a game-changer. She challenged the practices employed by the government and agriculture industries, and her efforts resulted in the banning of DDT and other pesticides and herbicides which had an enormous impact on human health and the ecological balance of Earth. Carson’s most significant achievement as a scientist, social critic and activist is the environmental movement she launched. She did so in a new medium: not a scientific article but a book for general audiences; by making clear the drastic consequences of inaction; and by pointing out the deadly symptoms—the vanishing of songbirds, for example. The importance of one person’s contribution in producing change in attitudes and policies cannot be underestimated.
But it also “takes a village” to push for social and political change, especially when such change is resisted by powerful interests and industries. Like Carson, artists can offer a fresh way of looking at environment degradation, and a compelling visualization of its consequences.

By presenting Climate of Uncertainty, the DePaul Art Museum provides a forum for artists’ concerns. We share many of the same goals: a desire to bring understanding to important problems of the environment, and to further a dialogue with the hope that awareness will bring transformation. Each artist in the project brings a certain conviction or principle as well as a fervent belief in and knowledge of the creative process as a means to tackle some of most important and troubling issues of our day.
Art in Irrevocable Times

By Liam Heneghan

If we are to have no future, consolingly, there will be no one to look back and blame us. If there is a future for us, however, those who reflect back from their future perch will recognize that which is hard for us to see: that we lived in times of irrevocable transition. The generations living right now are the first to live on a domesticated planet; undomesticating it is not an option. To put it another way, an undomesticated future planet is one without humans.

It is an urban planet besides—that which is not urban is in the resource shadow of our cities, or enjoys the benign neglect of those in cities in areas set aside as “wilderness.” This is a planet upon which the diversity of the biota is diminishing and its distribution reflects confusingly both natural and cultural forces, a planet on which the scale and amplitude of elemental cycles are vastly altered, a planet on which the winds now howl with a quasi-human voice.

Domesticated Earth is a planet partly of our own making; it is challenging, disturbing, and in innumerable ways beautiful. It is, in other words, the largest artwork ever made. And we now have to learn what it is to live inside this art. But what is the role of art-making from within the frame of Domesticated Earth? How well does it mirror this moment of transition? How does art determine the nature of the very future from the perspective of which it will be judged? Did it illuminate the transition prettily (not an inconsiderable thing to do) or, after our having paused under the lintel and reflected on the irretreviableness of the past, did artwork illuminate the possible routes to be taken, routes that were otherwise unimagined?
Only rock is environmentally friendly; living entities are environmentally transformative. It’s a distinction that defines life. To maintain homeostatic organization organisms take in substances, metabolize them, and dispel a stream of waste in their wake. The analysis of this mild environmental turbulence on local scales is called ecology.

Though it is not always the way in which ecologists evaluate these matters, all organisms impress an impact on the environments in which they are found. One could perform an environmental footprint analysis on a soil mite, a protozoan, a lion and so forth, though it is unlikely that the aggregated footprint of these organisms exceeds the geographical limits of the systems in which they are immediately found. In fact, wildlife managers calculate a so-called carrying capacity of local ecosystems: islands, national parks and other habitat, in order to calculate the optimal size of a given population. When capacity is exceeded the consequence is death.

Humans differ from other organisms when the complexity of defining their local environment is considered. The world’s more powerful and exploitative human populations do not fit readily into a local environment. For humans, ecologically, there is no such thing as local anymore; said differently, the globe itself is now our local environment. This is why our survival is linked to the fate of the Earth.

Collectively we are a stunningly large species. A way of illustrating the global nature of our species comes from calculations of our own ecological footprint; invariably we exceed the amount of productive land available to us. For example, the Chicago Metropolitan Statistical Area contains around 9 million people. The amount of land required to sustain each person (the physical footprint of our buildings, land for agricultural productivity and so forth) is about 20 acres. Collectively this is 180,000,000 acres (281,250 square miles). Illinois’s land area is 55,593 square miles, making the ecological footprint of Chicagoans five times larger than the state of Illinois. In fact Chicagoans do not live in Illinois—they live wherever their environmental shadow is cast. In turn, the US population is larger than the country which contains us, and the global population footprint is now larger than the globe. We can overshoot on the global scale only by drawing down on global environmental capital. And the planet may prove to be a rather taciturn banker when accounts come due.

The resource gluttony that got us to this point has had extravagant consequences on a global scale: despoliation of the biosphere, vast eutrophication of the hydrosphere, depletion of soils, and atmospheric changes resulting in climate disruption.

We are in the seemingly paradoxical position of not knowing the number of species on Earth to the nearest order of magnitude (are there 5 or 50 million?) but knowing that we have accelerated species loss to rates comparable to that of a
mass extinction event. That extinction is the fate of all species is beside the point, since ultimately the loss is measured in repercussions to us. Not the least part of this is the implication for our ethical self-conception. Is it good to be asteroid-like, comparable to the one that took out the dinosaurs?

There are three principal ways in which we accomplished a task that formerly required an intergalactic event. Of the three, the human transformation of natural habitat into human habitat has been most consequential. One study of the amount of land converted to cropland concluded that it increased globally from 3-4 million km² in 1700 to 15-18 million km² in 1990. This mainly occurred at the expense of forests. Meanwhile the amount of grazing land area expanded from 5 million km² to 31 million km² during this period. Consider Grand Prairie in Illinois: in the 1830s its area was about 150 miles by 60 miles, though because it was connected to other Midwestern prairies one could walk in a southeasterly direction away from the newly founded city of Chicago and remain on unbroken prairie for over 300 miles. There is only a fraction of 1% of original Illinois prairie remaining, and a walk across grassland is the work of an afternoon. In addition to habitat transformation, the direct over-exploitation of individual species and the global mixing of biota have added their toll to species loss.

Accompanying the conversion of wild habitat to farms has been the accelerated rate of soil erosion. This has arisen, in part, from the simplification of habitat associated with agriculture. Nature abhors a monoculture, but farms are monoculture by strenuous design. Additionally, we have reached the dramatic point where about half of all nitrogen taken out of the atmosphere and transferred to the soil—a process formerly performed by lightning and soil microbes—is now industrially accomplished. Agricultural systems are increasingly dependent on fertilizers to compensate for losses due to erosion and to keep pace with productivity demands, but the result has been an intensified transfer of excess nutrients into waterways. This process of loading nutrients into water is called eutrophication. It stimulates excess plant growth, often toxic blue-green algae. When such plants die the amount of oxygen demanded by microorganisms responsible for their decay is so great that other life in these systems cannot tolerate it. Fish die.

The artificial fixation of nitrogen is energetically expensive. After all, we have to replicate the power of a lightning strike to accomplish it. The energy for the process comes from the burning of fossil fuels. The complicity of energy and food production is such that some have suggested that we are essentially eating oil. But of course, we have increased our energy demands almost immeasurably for a variety of other purposes. By one calculation per capita energy use has increased by a factor of 8 since preindustrial times—this means that each one of us is now eight times the size, energetically speaking, of a person living in the 1800s. From
the early 1800s to now the global population size has increased about 7 times (from 1 to 7 billion) so the total energy demands have increased over 50 times the preindustrial levels. When we flick on a switch we call to order vast processes that ripple unseen away from our fingers, processes that plunge deep into the pools of oil and gas and that rummage among endless fields of coal. This is how contemporary work gets done.

Since the dawn of the industrial age we have reunited enormous quantities of ancient plants and zooplankton with their long postponed fate of decomposition, by cremating their remains. However, that which took millions of years to accumulate is being burned in a matter of decades, and the resulting elevation of CO₂ is creating havoc with the atmosphere. To deny this is to deny chemistry, physics, and biology. That burning fossil fuel volatilizes carbon is chemistry; that carbon dioxide, a greenhouse gas, alters atmospheric temperature is physics; and that elevated temperatures modify the ecology of systems is biology. Pure and simple. To obfuscate against the conclusion that we are raising planetary temperatures is to argue with every National Academy on Earth that has pronounced on it.

More than anything else the elevation of carbon dioxide in the atmosphere is the signature of our times. Elevated CO₂ is to the Anthropocene, a term geologists informally use to designate the epoch in which we live, what the mushroom cloud was to the Nuclear age. In fact the Anthropocene is primarily defined by atmospheric changes that we have wrought. It signifies that we have accomplished the unimaginably difficult in domesticating planet Earth—we have left the Quaternary period and irreversibly entered a new phase of Earth history.

This is not the first age in which art responded to climatic challenges. Running concurrently with this exhibition, the British Museum is exhibiting works of the last great Ice Age. That show’s title, Ice Age Art: Arrival of the Modern Mind, suggests that the art of that age was both a response to the climatic challenges and helped shape the emergence of the contemporary mind. In commenting on that show anthropologist Steven Mithen remarked: “Art was increasingly involved in communicating ideas and passing on knowledge from one generation to the next.”² So we can ask: In what way does the work exhibited in Climate of Uncertainty, the work of this new age of Domesticated Earth, communicate both to this generation and pass knowledge on to the future?

As its Latin root (domus) suggests, to domesticate is to make a house. On Earth it has been a clumsy process. When I wrote above that Domesticated Earth is a work of art, I didn’t mean to be argumentative or perverse. I simply mean that the earth as modified by collective human action reflects an act of poesis, of making,
and functionally the earth therefore performs as art. The human planetary domicile is made with deliberation, if not intention, and provides both aesthetic challenges and satisfaction. It is less clear that Domesticated Earth is procedurally a work of art. It emerges, however, as a collective product of many smaller installations, at least some of which are artistically produced for pleasing effect. More clearly, though, the produced Earth stands in a defining relationship with much (I might argue, all) art that gets produced on its surface. Just as Cubism, say, is in part a relationship with other artists in that tradition, and in part defined by relations with that which it is not, all art collectively reflects a relationship with the things of the earth. It is constrained by laws of the universe such as this one is, on a planet such as this and produced by a species such as we are. The art of any age will reflect, one supposes, its universe, planet and the beings that we are.

With this in mind all the works in this show can be seen in relation to one another and in relation to the large piece of work, Earth, that enframes them. This is not to diminish the autonomy of each piece, rather each can be regarded as a detail illuminating the large piece and each other. Some of the work unconceals our current situation in all its vertiginous qualities, some suggests a path to the future, and some, of course, does both.

The relationship between the scale of a work and the time it takes to create is perhaps at best a rough one. The creation of Domesticated Earth has been the work of billions of people over hundreds of millennia. It is the ongoing work of our species. If we look only to the past to create a sustainable future we become mired in romance and fey impossibilities. If we knew what a sustainable future looked like we could create an art form that gets us there. But the real beauty of this world is that we don’t know what’s around the corner. It is one of the functions of art, it seems to me, to survey the terrain and to birth possible futures.


2 http://www.guardian.co.uk/science/2012/dec/09/ice-age-art-exhibition-british-museum
Our sense of the global environment comes mainly from technologically delivered imagery. What most of us know of natural disasters (e.g., Superstorm Sandy), beautiful places (e.g., Caribbean beaches), and fascinating flora and fauna (e.g., polar bears and pitcherplants), comes less from direct participation and more from pictorial and video representations. Many think we are missing something essential when nature is delivered virtually instead of experienced directly. In this view, living bereft of nature is unnatural, contrary to our innate biophilia (see E.O. Wilson). Likewise nature deficit disorder (see Richard Louv) is a cause of diminished psychological and physical capacities. And our general lack of interest in local natural systems scales up to complex, non-linear phenomena such as planetary climate change. Yet these mediated experiences are increasingly the only ones we have at our disposal to make sense of the natural world, wherever we dwell.

The contemporary environmental movement’s paradoxical relationship to nature is a prime example. It promotes the natural world primarily through technological media. The “global environmentalism” of organizations such as the Sierra Club, the World Wildlife Fund, and the Nature Conservancy is inconceivable without modern information technology and its messaging powers. These organizations must win the hearts and minds of the planet’s citizens and leaders in order to effect the changes they seek. They need technology to inform, strategize, mobilize, grow, and network. In this sense global environmental organizations are
structurally analogous to for-profit corporations: they are coextensive with the apparatus of modern technology which, via capitalist drivers, plays a large part in environmental degradation. Global environmental protection movements focus on large-scale, systemic problems by also—partly and necessarily—casting them as local concerns. To be effective agents in the political, social, educational, and business realms, these advocacy organizations must adopt the normative discourses and methodologies of these sectors, but ironically, this approach is often unreflectively at odds with the natural world that such groups are working to preserve.

A further complication is that people experience weather, not climate. We feel hot, cold, dry, wet, or comfortable at any moment, but it is not clear in that same moment if this weather is an effect of global climate change. The meaning of changes in land and water quality does not come first from air, water, and soil analyses delivered by scientists, but from intestinal distress, the weariness caused by extra work, the satisfaction of bountiful production, the fear of predation, or the enjoyment of place.

A mediated experience of the environment is especially evident in images of nature. It is a fundamental law of the advertising, marketing, and propagandistic trades that when masses of people need to be moved, they deploy images, not arguments. Therefore photographs of the natural world ought to be the go-to medium when we want to publicize environmental problems. But can we trust technologically delivered images of nature to do what we want them to do, to mean what we want them to mean? Photographs of nature may entice people of means to visit these natural places before they disappear, but the same images may cause resentment among the less privileged—why should I worry (not to mention donate money) to preserve that place out there, when my place right here needs my immediate attention?

So, do the meanings that pictures of nature carry and generate end up promoting, or undermining, environmentalism?
I am going to presume that when most of us think of nature photography we envision some sort of Sierra Club or National Geographic, calendar-style, iconic imagery. The formal studies of Ansel Adams are archetypal. They rely on an assumption that authentic nature is found in the wild. Wilderness and the closely related concepts of the sublime and the frontier are the American default positions of thinking about what nature really is. Why is this?

The most persistent explanation relates our commitment to the wilderness ideal to the dualism that runs through western history and culture. Opinions vary as to when humans “fell from Eden,” as it were, and transferred our nostalgia for prelapsarian paradise to the ideal of wilderness-as-Other. For many people, the development of industrial modes of production marked the beginning of a qualitatively different relationship between humanity and nature. Nature and humanity were recast in rational, economic terms. Even the Romantics, with their recovery of sentiment in reaction to overbearing rationality, remained dualistic; they simply inverted the hierarchy.

Today, as part of a strategy to save certain geographic and biologic areas, the wilderness ideal allows us to leverage our dualism to move hearts and minds. We tell ourselves that we are ethically bound to protect what is out there—the wild that is apart from, bigger than, untamable by, a condition of the possibility of, humanity. The opposite is argued too: we are superior to nature, that it is “neutral” or even hostile until we make or break it our own through work—it is means to the ends we determine. In fact, we yo-yo between these sentimental (Romantic) and instrumental (Utilitarian) conceptions of nature, both of which are grounded in dualism and supported by the wilderness ideal. We often reluctantly end up granting that indeed we have to use nature to live—which we then feel guilty about.

But not only do we oscillate between varieties of dualism, we also swing between dualism and monism. Heraclitean flux, Christian mysticism, Spinoza’s metaphysics, Goethe’s romanticism, Heidegger’s and Merleau-Ponty’s phenomenology; as well as Zen Buddhism, aboriginal folkways, deep ecology, and quantum physics, all put forth monistic alternatives to traditional dualisms. Looking at things from these perspectives, humanity is an aspect, facet, mode, moment, of nature; privileged to live through it and perceive it from the inside.

The fact that after all of this cogitation we have not figured out once and for all what nature means to us is not a failing or a lack of rigor on our part. It reflects who we are: both natural and cultural. There is no meta-position that reconciles this paradox. It is the nature of our nature. We can be dualistic or monistic reactively, conservatively, unproductively. Or we can be dualistic or monistic actively, progressively, productively. It is not dualism or monism that is advantageous or disadvantageous per se, it is how we enact either or both.
There is a parallel here to the photograph. Photography promises access to the real, to truthful representation of reality. It aspires to a universal objectivity by capturing a specific time and place apart from merely subjective experiences of that instance. More than any other art form, it purports to deliver accurate images of objects themselves. The photograph is an image of the object but it is also an object in itself. A really good photograph generates more objects: thoughts, words, traditions, associations, and even more photographs. In a photograph of nature, a version of the real world becomes both a new connection to something out there and the addition of another layer between the viewer and nature itself. Nature photography brings natural objects closer to us at the same time it produces new cultural objects. Adams, for example, never pretended to deliver unadulterated representations of nature via his images. He photographed—manipulated, to be honest—nature in order to see what new natures could be seen in his photographs.

The promise or peril of photographic imagery of nature has never rested in whether or not what it depicts is real. Its power lies in its capacity for propagating new objects of interest and thus new associations among us and them.

Contrast iconic nature photography with the work in this exhibition. I want to suggest what we find here is just as much nature photography. I realize I run the risk of setting up a false distinction between old and new nature photography, but if I insist on this distinction now, it is only to make the idea of any kind of nature photography problematic. Let me look at Toshio Shibata’s “Arakawa Village, Saitama Prefecture” (1994), to illustrate this.

We are far removed from what Shibata saw when he brought camera to eye. At the same time, despite the image’s deceptive simplicity, multiple natures otherwise unavailable are there before us. The subject matter—a distressed and worked-over landform—is presented in an aesthetically striking way. But the image also brings a new type of nature and a new manner of engagement into being, in which the viewer is deeply implicated both in fact and value. Shibata shows us a cyborg landscape, wherein the organic and the engineered are melded into a new object, where the old boundaries between nature and culture are problematic. It is a mashed-up, hybrid reality, where neither nature nor culture is outside of the other, taking the other’s measure. There is no wilderness here—just as, in fact, there never has been in any iconic nature photography. (His opting for black and white drives this home, just as it does when we look in retrospect at Adams’s work.) Shibata illustrates the inappropriateness of the wilderness ideal to our hybrid world. He does this by showing us what amounts to a prosthesis without which the hill it is part of would presumably have eroded irrevocably. We see in Shibata’s work an image of our own hybridity: we are objects alongside other objects; fragile, overwhelmed, struggling to cohabitate well.
With a view to this exhibition as a whole, it might be helpful to recall the iconic images of the Earth brought back from space by Apollo astronauts nearly four decades ago. “Earthrise” from 1968 and “22727” from 1972 gave us, for the first time, images of our planet as a unified whole. Their arrival coincided with the first wave of global environmentalism. That era also marked the founding of Greenpeace, the publication of the Club of Rome’s Limits to Growth, and the United Nations’ proclamation of the first Earth Day. The subsequent dissemination and commodification of these images helped bring to a boil a tension simmering for hundreds of years in the West, what geographer Denis Cosgrove calls the opposition between “one-world” and “whole-earth” perspectives. The “one-world” perspective is linked to the Modern project of establishing a magisterial viewpoint outside and apart from the planet, while the “whole-earth” reading points to our ecological relationship to all beings, built up from here and now. One implication of the competing interpretations of these iconic earth images is, for Cosgrove, that both tend toward an essentialism that reinforces the traditional Western priority of vision, especially insofar as it leads us to conceive of the earth as modeled after a globe. (An equally significant implication is how this modernism is inextricably linked to global capitalism.) Now that we are aware of problematic character of this conception of earth-as-globe, our challenge is to not fall in with either the one-world or whole-earth or any other meta-perspective. Instead, we should use the images to think about alternative ways to return to the earth’s systems and spatial relationships, and to build new associations among ourselves and objects.

This speaks to the future of nature. How could it be anything other than a climate of uncertainty? I think there are ways to live with the uncertainty without it becoming debilitating. In his book What Do Pictures Want? W.J.T. Mitchell proposes that we should be like anthropologists examining totems: adopt a “curatorial solicitude” that attempts to “understand the social-historical contexts, the ritual practices, the belief systems and psychological mechanisms that make these images possess so much surplus value.” Totems are images of the natural world, especially animals and plants. Electronically delivered images of the earth are thus totems, legitimations of relations between culture and nature. We can enter into a conversational, transactional role with them. They become what actor-network theory calls “actants,” non-human objects that have their own kind of agency. Whence come our hybridity, and our future, if not from other hybrids?
I think Friedrich Nietzsche’s notion that objectivity is composed of multiple perspectives can help here too. Nietzsche shifts questions and problems from ontological (i.e., What is “X”?) to genealogical (i.e., Whose “X”? Which “X”? Why do we want to know “X”?) These “Xs” become reactive or become active. Activity is characterized by one becoming strong enough to say yes to the Other whereas reactivity is one saying no to and “othering” large swaths of being. Thus one develops an objectivity based not on an abstract view from nowhere, or a mushy monism, but on an intense engagement in as many aspects of life as one can bear. He calls this the process of translating humans back into nature. For me this means the assemblies of hybrid objects, no longer identifiable as either natural or cultural, with which we live and work and think creatively, object to object to object.

The question of the future of nature has been eclipsed. Instead of saving the wilderness our focus is now on what kinds of hybrids we are going to promote and associate with. Global environmentalism needs to reframe its agenda in terms of hybrid objects. To do so it must use images. Images show us new ways of being with objects, new ecologies of objects. Electronic technology plays an integral (though ironic) part. As hybrids, born partly of this technology, the works in this exhibit provide new and creative ways for us to peer through the haze of environmental uncertainty. They are totems of inestimable value in negotiating new and better ecologies of objects now and in the future. The future will be made from this kind of work.
Artworks of Uncertainty
Edward Burtynsky, a Canadian photographer, has been documenting industrial landscapes: mining, quarrying, large-scale manufacturing and oil production. Images from his Manufacturing series address the massive scale of factory production in China.

edwardburtynsky.com
Terry Evans, a Chicago photographer, recently documented the Jakobshavn glacier in Greenland and the work of scientists from the University of Kansas measuring the thickness of ice sheets to assess glacial melt.

terryevansphotography.com

Terry Evans, *Fjord that Leads to the Mouth of the Jakobshavn Glacier*, from the series *A Greenland Glacier: The Scale of Climate Change*, 2008

photo © Terry Evans, courtesy the artist and Catherine Edelman Gallery, Chicago
Chris Jordan is currently photographing in the Pacific Midway Atoll region. His disturbing images show how plastic waste kills thousands of young albatrosses every year when they ingest it mistakenly, a graphic example of the effects of human over-consumption.

[Image of a dead bird with plastic in its stomach]

Allison Grant’s series *Unsoiled* replicates wilderness images found on the internet by repurposing found refuse materials such as plastic packing and nylon webbing into landscapes that are familiar yet disquieting. The process is apparent on close examination, making the illusion of nature an eerily apparent construct.

[allisongrant.com](http://allisongrant.com)
Christina Seely’s photographic project Lux was inspired by NASA satellite images of earth’s nighttime artificial illumination. Our extravagant use of artificial light not only correlates to high energy consumption, but also changes our relation to the night sky, disrupting our astronomical observations and circadian rhythms of human and animal populations.

christinaseely.com

Christina Seely, Metropolis 40° 25' N 3° 41' W (Madrid), 2005 – 2009
Toshio Shibata documents large-scale infrastructure projects such as damming, highways, and bridges, finding the abstract qualities of the landscape, and making no overt environmental critique, but suggesting that human intervention in nature can be guided by a more harmonious aesthetic.

shibata.com

Toshio Shibata, Arakawa Village, Saitama Prefecture, 1994
photo © Toshio Shibata, courtesy Laurence Miller Gallery, New York
Daniel Shea’s *Removing Mountains* series documents the coal extraction process known as mountaintop removal, one of the most destructive and pervasive forms of industrial extraction in the modern world. His follow-up series *Plume* continues the production cycle of the coal industry in an unusually dense concentration of coal-fired power plants in Southeast Ohio.

danielshea.com
Marissa Benedict’s installation *Algal Biodiesel* is a mini-laboratory in which the artist functions as citizen scientist seeking to develop alternative energy sources. Benedict’s haunting lighting combined with the seductive green cast from the algae represents the uncertain and precarious nature of alternative energy research.

[Marissa Lee Benedict’s website](http://marissaleebenedict.com)
Sonja Hinrichsen’s multi-screen video projection “Three Gorges 3rd edition” projects images of the Yangtze River onto the walls, replicating the experience of a boat cruise on the four rivers. The largest hydroelectric dam in the world has displaced millions of people, disrupted a rich ecosystem, further polluted one of the world’s longest rivers, and has become an emblem of human folly on a gargantuan scale.

[sonjahinrichsen.wordpress.com](http://sonjahinrichsen.wordpress.com)
Installation Artist

Maskull Lasserre, a Montreal-based installation artist, permits viewers of his Murder to consider multiple layers of meaning and interpretation. Black crows may refer to deforestation and habitat destruction or species loss, or alternatively the crow, a bird with strikingly similar characteristics to humans (we share the same diets) could signify adaptation and renewal.

maskulllasserre.com

Maskull Lasserre, Murder, 2011 – 2012
Sabrina Raaf is a Chicago-based artist working in experimental sculptural design. The robotic functioning piece “Grower” measures the carbon dioxide levels in its environment and translates the readings onto walls as strokes of green paint. The viewer becomes an involuntary participant in the piece simply by exhaling, a reminder of the impact of a single organism on the environment.

raaf.org
Marilyn Propp draws attention to the declining health of the ocean’s ecosystem in her twelve-panel woodcut print *Deep Sea Drifters II*, the result of industrial waste pollution and deep sea trawling.

proppionesstudio.com

*Marilyn Propp, Deep Sea Drifters II, 2012*
DePaul Art Museum

Climate of Uncertainty

Jan 10 — March 24, 2013

Curator
Laura Fatemi

DePaul University consulting and participating scholars:
Liam Heneghan
Randy Honold
James Montgomery
Mark Potosnak
Doris Rusch
Robert Steel

Artists
Marissa Benedict
Edward Burtynsky
Terry Evans
Allison Grant
Sonja Hinrichsen
Chris Jordan
Maskull Lasserre
Marilyn Propp
Sabrina Raaf
Christina Seely
Daniel Shea
Toshio Shibata