Although light is flowing all around us, we can only perceive a sliver of it. Radioactive explosions, sun rays, and the transmissions of a cell phone are all light waves—they differ only according to the frequency and energy of their vibrations. Dial up the energy of a radio wave, and humans will begin to see the colors of the rainbow in it. Dial it up again, and X-Ray machines can make images of bones. How something is experienced often has to do with whether its frequency is in or out of range.

This month, things in the basement will begin to vibrate. Pulsing oxygen molecules will produce a familiar yet indiscernible scent, underwater insects will sing in ultrasounds, and a philosopher will consider what it means for a thing to be more or less intensely itself.

APR. 1–MAY 10, 2014
EVERYTHING

APR. 1, 6:00–8:00 PM

OPENING
Save the date for another opening.

INFLUENZA
Influenza is a highly infectious disease characterized by fever, body aches, and a sore throat that lasts one to two weeks, sometimes progressing to the more serious respiratory condition Pneumonia.

The flu typically produces annual epidemics during the winter months, where lower air humidity and increased indoor confinement allows for the virus to spread more easily through its primary means: aerosol dispersion through coughing, sneezing, and talking that can transmit the illness up to six feet away. While infectiousness is usually highest at the peak of the flu’s symptoms, hosts are capable of spreading the virus a day before becoming symptomatic and a third of those carrying it show no symptoms whatsoever.

THE MOSQUITO
The Mosquito is an alarm that emits high-frequency sound waves only humans under age 25 can hear. It was originally conceived to ward off teens from loitering, vandalism and graffiti. Its high pitch tone needs between five and fifteen minutes to take effect, depending on ambient noise. Although harmless, the Mosquito has been controversial on the basis of discrimination against young people.

In 2006, a year after the Mosquito was invented, young people created the “Teen Buzz”, a cellphone application that used similar high-frequency sounds, enabling them to communicate without adults’ knowledge.

APR. 1–MAY 11

DOCUMENTARY

In this documentary video, curator Emma Lavigne gives a tour of Pierre Huyghe’s retrospective at the Centre Pompidou in Paris after its deinstallation, imaging the works and speaking as if they were still there.

SCENT

The script of the two chemical compounds in this fragrant solution, Octanal and 2-Octanone, differ only in the location of a single oxygen molecule. Together they form a synthetic scent capturing the minimal difference between two nearly identical artificial odors used for flavoring and perfume.

Such an admixture is in constant chemical vibration, as the incessant back-and-forth of a single molecule produces a commensurate olfactory experience that is both intense and fleeting: redolent of familiar plants and foods but without ever settling into specificity.

If artificial odors are typically used mimetically, that is, to stimulate easy recognition, their convergence here produces a prototypical encounter with abstraction—the halting experience of falling in and out of apperception.

BLUE BIRD DROPPINGS

For the next six-weeks, Lower East Side birds, along with other neighborhood birds, will shit in hues of deep sky, International Klein Blue, sapphire and azure.

Artist Etienne Chambaud has provided thirty pounds of dried blue bird seeds for the windowbox of The Artist’s Institute and for a stretch of grass in the Sara D. Roosevelt Park nearby. On average, a well-fed bird deposits twenty-five pounds of droppings a year. Readdressed to a human eye’s attention, blue bird droppings will turn into drippings, an “additive expression” in blue that may soon appear on build-
ings, taxis, benches and pass-
ersby as the weeks wear on.

**HOUSEFLY**
The *Musca domestica*, commonly known as the housefly, is one of the most widely distributed insects. Over its life cycle, the housefly goes through a complete metamorphosis, beginning as milky-white maggot that feeds on things like moist garbage, open wounds, and animal excrement. Within ten days, it searches for dryer environs, where it grows a reddish-brown skin, from which a fully developed fly hatches three to six days later.

Because of their proximity to places like dumps, sewers, garbage heaps, and fecal matter, a single house fly can carry over 100 pathogens, including those which lead to typhoid, cholera, salmonellosis, tuberculosis, anthrax, and parasitic worms.

**TEXT**


**Visual Space**
Eyeless animals who, like the tick, have a photosensitive skin probably have identical skin regions to produce local signs for both light stimuli and tactile stimuli. Visual and tactile *loci* coincide in their world.

Only in animals with eyes are visual and tactile space distinctly segregated. In the retina of the eye, a very small elementary section, the visual elements lie close together. Each element of vision has a corresponding place in the *Umwelt*, since there is a local sign for each visual element.

It is clear that, owing to the global structure of the eye, the section of the environment that reaches one visual element grows with increasing distance, and that ever more comprehensive parts of the environment are covered by one place. In consequence, objects receding from the eye become smaller and smaller, until they shrink to a single locus, at which point they vanish. For the place or locus represents the smallest spatial vessel within which there are no differences.

In tactile space, objects do not grow smaller. And this is where visual and tactile space enter into conflict. A cup grasped with the outstretched arm and guided to the lips grows in visual space, but does not change its size in tactile space. In this case tactile space predominates, because an impartial observer does not see the cup grow.

The roving eye, like the feeling hand, spreads a subtle mosaic of places, or sites over all the things in the subject’s world. The delicacy of this mosaic depends on the number of visual elements, which grasp the same sector of the environment.

Since the number of visual elements varies greatly in the eyes of different animals, the place-mosaics in their environments must differ correspondingly. The coarser the place-mosaic, the more details will be lost, and the world as seen through the eyes of a fly must appear considerably cruder than it does to the human eye.

Since any image can be transformed into a place-mosaic by superimposing a fine mesh or lattice on it, this method makes it possible to render the differences between the place-mosaics of various animal eyes.

By diminishing a picture more and more, photographing it again with the same lattice, and then re-enlarging it, we shall obtain a progressively coarser mosaic. Since the lattice photographed with the picture is disturbing, the coarser mosaic-images have been reproduced as watercolors, without the lattice. Figures 9a to 9d were made by the lattice method. They enable us to gain insight into the world of an animal if we know the number of visual elements in its eye. Figure 9c corresponds roughly to the image furnished by the eye of a housefly. It is easy to see that in a world which contains so few details, the threads of a cobweb must vanish completely, and we may say: the spider spins a web that remains totally invisible to its prey.
The Farthest Place
Unlike operation and tactile space, visual space is surrounded by an impenetrable wall, which we call the horizon or farthest plane.

Sun, moon and stars wander without any difference in depth on the same most distant plane, which surrounds all visible things. The location of the farthest plane is not rigidly fixed. When I took my first walk out of doors after a serious case of typhoid, the farthest plane hung down before me at a distance of about twenty meters, like a colorful tapestry on which all visible things were depicted. Beyond the twenty meters, there were no nearer and farther objects, only larger and smaller one. Even the cars that drove past me did not become more remote, only smaller as soon as they reached the farthest plane.

The lens of the human eye has the same function as the lens of a photographic camera—namely, to focus the objects before it sharply onto the retina, which is the counterpart of the photosensitive plate. The lens of the human eye is elastic and can be bent by special ciliary muscles. This curving has the same effect as focusing the lens in a camera.

When the lens muscles are contracted, “forward” directional signs appear. When the elastic lens distends the relaxing muscles, directional signs appear which signal “backwards.” When the muscles are totally relaxed, the eye is set for a range of ten meters to infinity.

Through the muscular movements, we recognize the things in our environment as being near or far within a radius of ten meters. Outside this orbit, objects at first become only larger or smaller. The infant’s visual space ends here with a farthest plane that encompasses his entire world. Only gradually, step by step, do we learn to push back the most distant plane with the aid of distance signs, until, at a distance of 6 to 8 km., it sets a limit to the adult’s visual space, too, and the horizon begins.

The difference between the visual spaces of a child and a grow-nup is portrayed in Figure 10, which reproduces an experience described by Helmholtz. He reports that as a little boy he was passing the Potsdam garrison church, and noticed some workmen on the gallery. Thereupon he asked his mother to reach down some of the little dolls for him. Church and workmen were already on his farthest plane, and so were not distant, but small. Thus he had every reason to believe that his mother could fetch the puppets down from the gallery with her long arm. He did not know that in his mother’s world the church had altogether different dimensions and that the people on the gallery were not small, but far away. It is hard to decide where the farthest plane begins in the Umwelt of an animal, for it is difficult to determine experimentally at what point an object approaching the subject in his environment becomes nearer as well as larger in his specific world. Attempts at catching flies show that the approaching human hand makes them fly away only when it is about half a meter from them. Accordingly, it would seem justifiable to suppose that their farthest plane is at this distance.

But other observations suggest that the most remote plane also appears in other ways in the housefly’s world. We know that flies do not simply circle around a hanging lamp or chandelier, but interrupt their flight abruptly whenever they have flown half a meter or so away, and then fly close by or under it again. This behavior is like that of a yachtsman who is anxious to stay within sight of an island.

Now the eye of a fly (Fig. 11) is built in such a way that its visual elements (rhabdons) are long nerve configurations, which must intercept the image projected by their lenses at varying depths, depending on the distance of the object seen. Exner has surmised that we might here be dealing with a substitute for the muscular lens apparatus of the human eye. Assuming that the optic apparatus made up of the fly’s visual elements functions as a portrait
As philosopher Tristan Garcia understands it, there is a way to think about a universe of pure extensity, where each entity would be part of another, that would be part of another, and so on. Here nothing would ever belong to itself, but anything would belong to something else: being unidentifiable, each entity related to itself would already be another one. Extensity would be the name of an endless nightmarish extension of entities without identity and without intensity.


When flying around a cave, a bat generates ultrasound to find its way. These sonic calls range in frequency from 14,000 to over 100,000 Hz, pinging off walls and creating a highly complex echolocation scan of the surrounding environs. Ani-
mals including whales, toadfish, and moths also use the acoustic properties of space for orientation. You could say they “see” with sound and “hear” the objects around them.

While all sound is invisible, ultrasound is inaudible to humans. Its oscillating sound pressure waves have a greater frequency than our upper limits, which top off at around 20,000 Hz. Many species have access to a greater frequency than us and also more specific and specialized combinations of senses, producing and perceiving high frequencies for orientation, hunting, and communication. The mix for Winderen’s piece Out of Range (2014) is based on ultrasound hydrophone recordings onto an ultrasound detector, hydrophone recordings below the water, and echolocation sound in audible range by mammals and sounds made by fish and underwater insects. The recordings were made in various locations in Central Park and along the East River in New York, in a forest outside Kaliningrad in Russia, in Regents Park, London, and in various locations in Madeira, Norway, Denmark and Sweden. The ultrasound is time-stretched to bring it into a frequency range audible for human beings. We will play it in The Artist’s Institute following a talk by philosopher Tristan Garcia.

APR. 28, 7:00 PM
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TALK
Both sixteenth-century seafarers and the scientists of modernity relied on technologies of orientation and figuration. Whether charting untested waters and populating them with “axiomatic monsters”, or de-animating Nature in quarantined laboratories, they drew on a similar logic—one that finds resonance in the modern museum. Curator Vincent Normand will discuss the museum and its relationship to the term “exhibition” in light of two boundary practices he believes defined modern cosmography: vivisection and navigation. His talk takes its title from a darkly humorous question posed in Joseph Conrad’s The Secret Agent: “It would be really telling if one could throw a bomb into pure mathematics... what do you think of having a go at pure astronomy?”

MAY 6, 7:30 PM
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FILMS AT ANTHOLOGY
We will screen a selection of films at Anthology Film Archives, 32 Second Ave., NYC. Tickets are available at anthologyfilmarchives.org.

Pierre Huyghe, A Way in Untitled, 2013, 14 min., color.

As Pierre Huyghe describes it: “The place is enclosed. Elements from different strata in history lie next to each other with no chronological order or sign of origin. There are either physical adaptations of fictional and factual documents or existing things. In the compost of a Baroque garden, artifacts, inanimate elements, and living organisms... plants, animals, humans, bacteria are left without culture, non dependent and indifferent to our presence.”

Jean-Daniel Pollet, Bassae, 1964, 35 mm, 9 min., color, voice-over by Jean Négroni.

High up in the mountains of the Arcadia region, Bassae is one of the oldest archaeological site in Greece. Devoted to Apollo, the temple was built in 5th century B.C. In Latin, bassae means “little vale in the rocks”. French filmmaker Jean-Daniel Pollet filmed the old temple in decay, hovering around the ruins as if time was a gigantic loop with no beginning and no end. The old rocks of the Bassae temple are made of solid organic substances that will continue drifting towards the mineral world. Its columns turn into trees, and its architecture is like a forest. As the film’s narrator tells us, “Ce minéral dressé ou couché, à quel ordre appartient-il ? À quel désordre ? Cela n’a pas de nom précis dans aucune langue, pas d’histoire propre, c’est nulle part, cela pourrait être n’importe quand.”
Jean Painlevé, *Spider Crabs and Macropodia (Hyas and Stenorhynchus)*, 1927, 35mm, 18 min.; *The Sea Horse*, 1933, 35mm, 13 min.; *Sea Urchins*, 1954, 35mm, 11 min.; *Acera or the Witches Dance*, 1972, 35mm, 13 min; *Liquid Crystals*, 1978, 35mm, 6 min; *The Love Life of the Octopus*, 1967, 35mm, 13 min.; *Diatoms*, 1968, 35mm, 17 min.

Jean Painlevé is often credited with inventing the genre of science-as-fiction. A favorite of André Breton, Luis Buñuel, Antonin Artaud and others, Painlevé sought out the surreal beauty in the everyday drama of ecological life. In a career that spanned over fifty years and 200 films, Painlevé’s camera roamed the natural world capturing everything from the formation of crystals, to the birth of a jellyfish and the eating habits of insects. Painlevé pioneered underwater, slow-motion, and macro photography, making significant contributions to naturalist and avant-garde filmmaking; decades later, his films’ relentless curiosity and vitality remain a testament to the fact that science and art are both fundamentally rooted in experimentation. This selection of films spans forty years of Painlevé’s œuvre and features some of his most beloved works, including *The Sea Horse* (1933) and *The Love Life of the Octopus* (1967).

Fabien Giraud and Raphaël Siboni, *Bassae Bassae*, 35 mm film, 9 min.

Ever since 1987, when its restoration work began, the Temple of Bassae has been covered by a large white tent, making it disappear. Forty years ago, filmmaker Jean-Daniel Pollet described how stones had fallen back into silence, as the gods withdrew from the scene, and his film *Bassae* (1964) captures this sentiment. *Bassae Bassae* by Giraud and Siboni shows the temple now made invisible by its very restoration. Like a contemporary reprise of the original work, *Bassae Bassae* is a film about that which has become mute and invisible.