

# SANCTUARY for WEEDINESS

*A Winter Respite for Urban-dwelling Plants and Humans*



**Ellie Irons**  
ellieirons.com

Bushwick Relocation & Rehabilitation Collection

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## In this guide you will find

- An explanation of feral landscapes and novel ecosystems
- Habitat photos: Feral Landscape Typologies
- Species guide to twenty plants present in the sanctuary
- Map 1: Bushwick collection sites
- Map 2: Global species origins
- Additional weedy species of Bushwick
- Why Weeds?  
(An Artist's Introduction to Embracing Feral Landscapes)
- Glossary
- Resources/References/Muses



Weedy Species Alliance Approved  
Share and share alike





This urban meadow at the intersection of Bushwick Avenue and Beaver Street in Brooklyn was formerly a gas station and auto body shop. It is currently owned by the City of New York and is slated to be turned into a playground.

## Feral Landscape/Novel Ecosystem/Weed Habitat

If they weren't in the gallery, where would these plants live? The photographs opposite, drawn from my *Feral Landscape Typologies* collection, present a range of transitory gaps and holes in the cityscape that these plants are able to fill. The vast majority of these open spaces can be considered "novel ecosystems", meaning the structure and function of the landscape has been so dramatically altered by humans that the changes have become irreversible. It is no longer possible to return the meadow in the image above to its former status as a reed-filled marshland (at least not as long as Brooklyn remains Brooklyn). So, while it waits to become a playground, it functions as a novel ecosystem. And novel spaces call for novel life forms. Tough, adaptable plants from around the world have colonized this space, mirroring the shifting population of humans whose infrastructure now dominates the surrounding land. Both life forms have adapted to cope with the constant upheaval that pervades urban life in a development-oriented city.



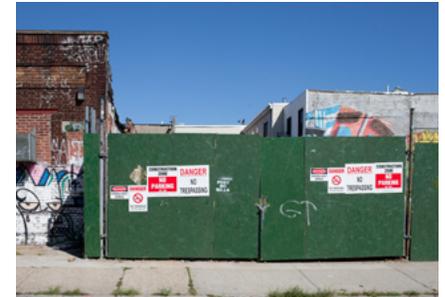
(May 2015) **Sandwiched Lot with concrete, Dekalb Avenue** (July 2015)



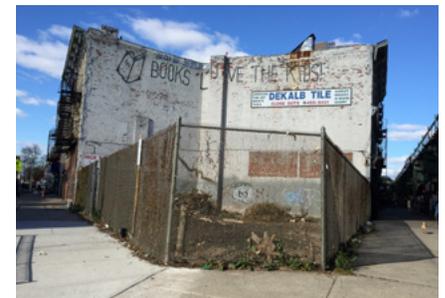
(August 2015) **Corner Lot, Irving Street at Cooper Ave** (October 2015)



(May 2015) **Corner meadow w/ artwork, Suydam St at Central Ave** (July 2015)



(July 2015) **Triangular lot w/ tree cover, Broadway at Dekalb Ave** (Nov 2015)



# SELECTED SPECIES

1



*Ailanthus altissima* (tree of heaven)

**origin: NE Asia/studio germination**

Formerly used as a street tree, now considered an invasive pest. Fast growing and short lived, but can reproduce vegetatively for longer life span. Allelopathic. History of use in Chinese medicine (bark/ roots). The namesake for *A Tree Grows in Brooklyn*,

2



*Gleditsia triacanthos* (honey locust)

**origin: Central N. America/unkept park edge**

Aka “thorny locust”. Fast growing tree. Thorns may have evolved in response to Pleistocene megafauna, now vestigial. Fast growing, short lived, considered a significant invasive in temperate climates outside N. America.

3



*Phytolacca Americana* (pokeweed)

**origin: E. North America/construction site**

Perennial bush, toxic leaves, roots. Magenta berries useful for making ink, provide food for wildlife. Attractive foliage but often considered a pest when flourishing in cultivated and ornamental settings. Regenerates yearly from large root structure.

4



*Celastrus orbiculatus* (bittersweet)

**origin: Eastern Asia/studio germination**

Woody vine. Introduced to US as an ornamental in 1879. Readily hybridizes with native bittersweet (*Celastrus scandens*). Considered an invasive threat due to hybridization and competition with hardwood canopy trees. Distinctive orange berries.

5



*Ipomoea purpurea* (tall morning glory)

**origin: Central America/construction site**

Herbaceous vine. Naturalized to warm temperate/subtropical regions throughout the world. Wild growing “noxious weed” with many related cultivars valued as ornamental plants. Seeds contain an alkaloid that produces psychedelic effects.

# SELECTED SPECIES

6



*Galium* (bedstraw)

**origin: Eurasia/in-progress bioswale**

Herbaceous perennial, mat forming with some erect stems. Described as a “persistent weed” in agricultural settings and other regularly disturbed/ anthropogenically modified landscapes. Non-toxic, young plants edible.

7



*Oenothera biennis* (evening primrose)

**origin: E. & Central N. America/vacant lot**

Herbaceous flowering plant, biennial. In second year yellow flowers bloom at dusk. Copious seed production, valued by birds as nutritious food source, by humans as a nutritional supplement. Has been studied for medicinal properties.

8



*Cirsium vulgare* (bull thistle)

**origin: Eurasia, N. Africa/in-progress bioswale**

Herbaceous biennial thistle. Naturalized throughout N. America, Australia, Africa. Disturbance specialist, Unpalatable to many grazing animals, persists in rangelands. Edible stems, seeds important to birds. Designated an “injurious weed” in UK.

9



*Artemisia vulgaris* (common mugwort)

**origin: Eurasia/construction site**

Herbaceous perennial. Tall, erect. Distinctive spicy scent. Historic and contemporary use as a medicinal and culinary herb. Disturbance adapted. Can form dense stands in poor, disturbed soils.

10



*Datura stramonium* (jimson weed)

**origin: E. North America/in-progress bioswale**

Fast growing herbaceous summer annual, widely naturalized in temperate regions. “Foul smelling” when crushed. All parts contain highly toxic alkaloids w/ psychotropic properties. Large, trumpet shaped flowers, spherical, bristle covered seed pods.

## SELECTED SPECIES

11



*Chenopodium album* (lambsquarters)

**origin: Eurasia/newly filled street tree pit**  
Summer annual. Rapidly-growing, versatile colonizer of disturbed soil. Often more frost/drought tolerant than neighboring plants. Young leaves and mature seeds edible. Related to *Chenopodium quinoa*, the high mountain species cultivated in Peru.

12



*Galingsoga quadriradiata* (quickweed)

**origin: Central America/in-progress bioswale**  
Herbaceous summer annual. Naturalized throughout eastern North America, Europe, Asia. Reproduces quickly (multiple generations per season). Seeds can remain dormant/viable in the soil over multiple years. Young are plants edible.

13



*Polygonum persicaria* (ladythumb)

**origin: Eurasia/newly filled street tree pit**  
Herbaceous summer annual. Present in eastern North America in the late 19th century, may have been introduced as early as 1672. Now widely naturalized in disturbed areas. Long history of use as a medicinal plant in Europe.

14



*Bidens frondosa* (devil's beggarticks)

**origin: eastern N. America/in-progress bioswale**  
Summer annual. Upright, rangy flowering plant. Yellow and green blooms give way to barbed seeds that stick tightly fur, clothing, hair. Tolerant of compacted soil in a wide variety of habitats.

15



*Solanum nigrum* (black nightshade)

**origin: Eurasia/in-progress bioswale**  
Summer annual/short lived perennial. Low, shrub-like plant produces deep black berries consumed by birds. Leaves, stems, green berries are toxic to humans and other mammals. Long history of medicinal use in Eurasia and Africa.

## SELECTED SPECIES

16



*Daucus carota* (Queen Anne's lace)

**origin: Eurasia, N. Africa/in-progress bioswale**  
Herbaceous biennial, lacy white flowers in second year. Long history of medicinal use, as a "morning after" contraceptive and fertility reducer. Tolerant of poor soil, road salt, compaction.

17



*Mollugo verticillata* (carpetweed)

**origin: Central America/newly filled tree pit**  
Herbaceous summer annual. Prostrate, mat forming growth structure. Well adapted for sidewalks cracks, other infrastructure gaps. Disturbance adapted colonizer of bare ground.

18



*Capsella bursa-pastoris* (shepherd's purse)

**origin: Europe/new unplanted tree pit**  
Herbaceous winter annual. Arrived in the Americas with European colonization, recorded as present by the late 1600s. Closely related to the model organism *Arabidopsis thaliana*. Short germination time, capable of producing several generations per year.

19



*Sonchus oleraceus* (annual sow thistle)

**origin: Europe/new unplanted tree pit**  
Herbaceous summer annual. Wind dispersed seeds on dandelion-like white pappus. Early arrival to the Americas with European (reported as early as 1672). Leaves edible when young.

20

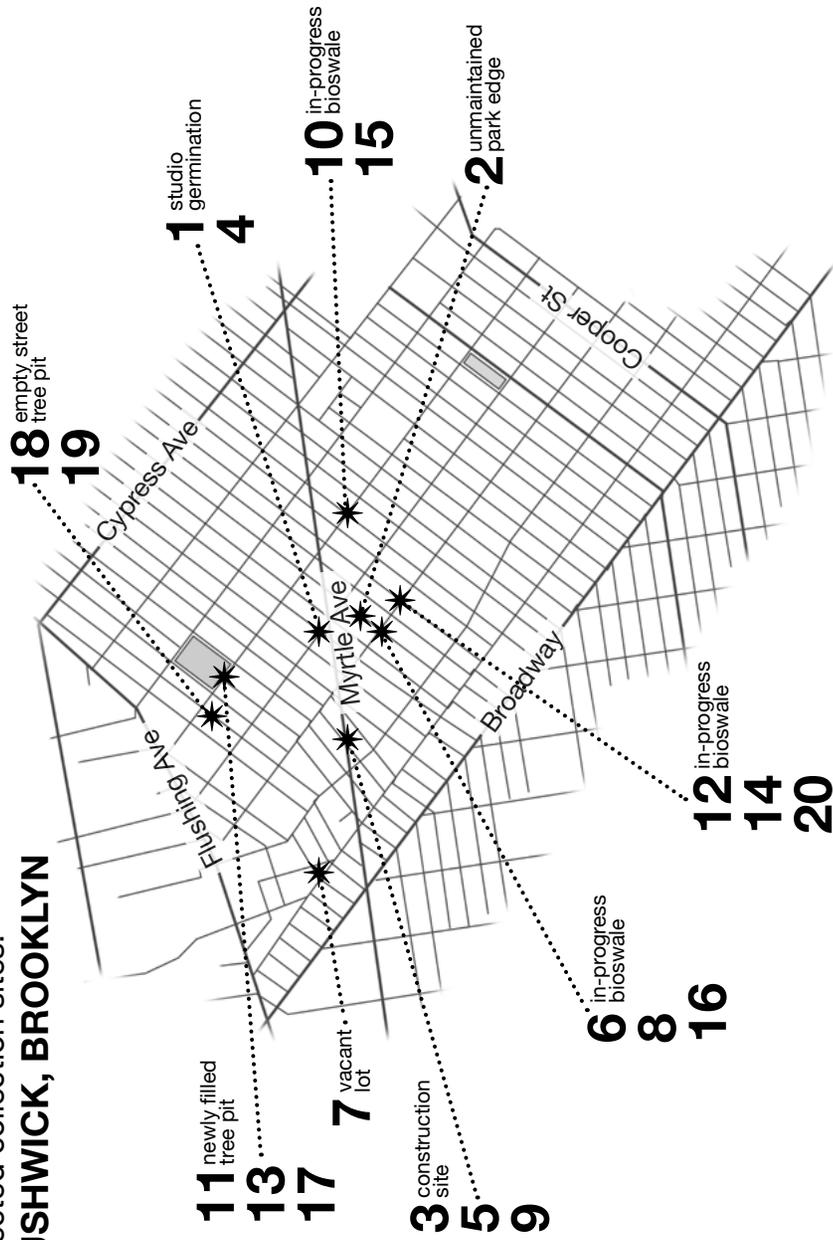


*Oxalis stricta* (yellow woodsorrel)

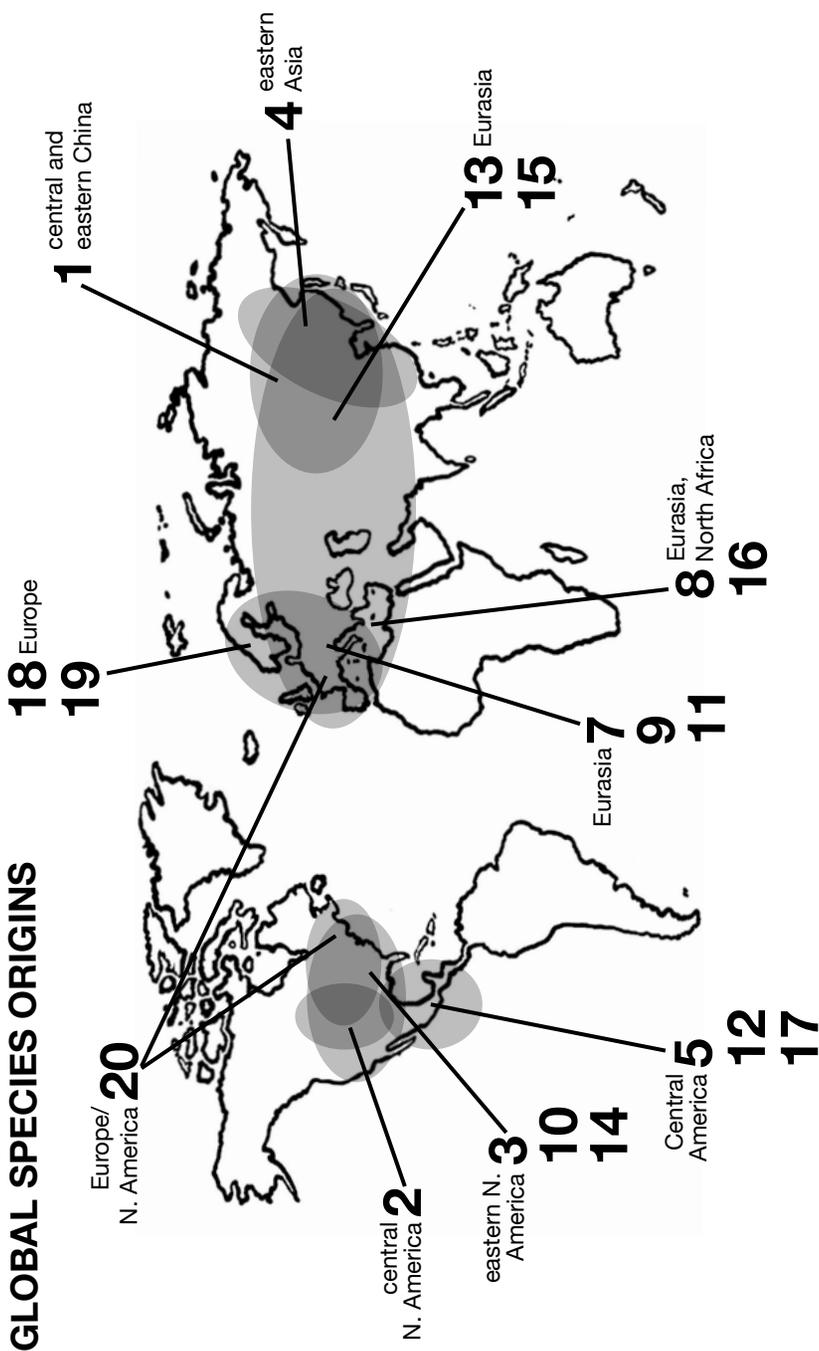
**origin: Europe, N. America/in-progress bioswale**  
Small summer annual. Cloverlike leaves have are edible and have a sour flavor. Produces small yellow flowers and seed pods that burst on contact.

Selected collection sites:

## BUSHWICK, BROOKLYN



## GLOBAL SPECIES ORIGINS



## Why Weeds?

### *An artist's introduction to embracing feral landscapes*

**1. Maintenance and spontaneity:** The manicured botanical gardens and parks of New York City are well known, and host an wide array of maintained plant life, from rare ornamentals and showy cultivars to native trees and wildflowers. The miles of concrete that spread between these green oases are home to another, less well-cared for community of plants. Sometimes called “spontaneous plants”, they are commonly labeled “weeds”. Under this moniker they are routinely ignored and often purposefully destroyed. But these plants have much to offer. Co-evolved with humans, they are well-suited to do the tough work of greening a heavily altered anthropogenic landscape. They stabilize soil, reduce storm runoff, clean and cool the air, provide food and habitat for animals, and sequester carbon. And they do so in places, and at scales, that our city is unprepared to equal with maintained parks and plantings.

**2. “Vacant” land:** As a longtime resident of Bushwick, I’ve seen the greenspace in my neighborhood disappear at an alarming rate over recent years. Most of this newly developed land has been unthinkingly cast as “vacant”, with the loss of ecosystem services going unacknowledged. But with each new foundation or parking lot, my neighbors and I lose access to an essential part of the human experience: dwelling alongside autonomous, living, breathing non-human life. These spaces were never vacant.

**3. Weeds in context:** If you’d asked me ten years ago, like many city-dwellers I wouldn’t have been able to tell you what grew on my block, or why that mattered. But over recent years I’ve been using the plants outside my door to make watercolor paint. This has alerted me to a host of benefits (emotional, social, ecological) that come from engaging with spontaneous plant life in an urban setting. Context matters. In the agricultural wastelands of Monsanto’s monocultures, herbicide resistant weeds are outpacing human ingenuity. In the marshes of Long Island phragmites is overwhelming damaged coastal ecosystems. But here in Brooklyn, as development intensifies, concrete and paving stones are pushing out spontaneity. *The weedy spaces of Bushwick are endangered.*

**4. Let the dandelions live:** *Sanctuary for Weediness* is composed of more than forty species of wild plants harvested or sprouted from Bushwick soil. In the proper season, these plants are capable of thriving without human care or maintenance. Here in the gallery, in the dead of winter, they are a carefully orchestrated anomaly. I present them as an entreaty to engage the weedy and spontaneous. Beyond plant-blindness and nativism, there are functioning feral ecosystems that can lead us towards an ethic of degrowth and reinvestment in what already exists. Let the dandelions live!

## *Sanctuary for Weediness: Glossary*

\*adapted from Peter Del Tredici’s *Spontaneous Urban Plants of the Northeast*

**Spontaneous urban plant:** A plant that grows in an urban area without cultivation by humans. May refer to either native or nonnative species.

**Ruderal:** a plant that grows in “wasted” or abandoned landscapes. From Latin rudera, ‘rubble.’ In ecological terminology, disturbance-adapted species.

**Pioneer species:** a plant that colonizes bare ground, often after extreme events (fire, landslide, excavation)

**Native:** Species occurring “naturally”\* in a given region; not introduced into an area as a result of human activity.

\*A reductive binary: the cutoff for native species in the Northeast is generally understood as circa 1600, around the arrival of Henry Hudson and acceleration of the Columbian Exchange. Species existing in the area pre-1600 are described as native. In Europe, where the record of urban ecological history is contiguous over centuries, there is a category between native and nonnative for species that were introduced through agriculture and trade pre-1500.

**Invasive:** A non-native species with the ability to reproduce/spread rapidly in minimally managed or “natural” habitats, thus reducing biodiversity through competition with other species. Also used to describe unwanted plants that thrive in agricultural settings, regardless of native status.

**Adventive:** Introduced or nonnative species with only limited or temporary distribution in a given area.

**Naturalized:** Introduced or nonnative species that reproduces on its own and is well established in a given region.

**Volunteer:** plant that grows without being cultivated, native or nonnative.

### **Ecological Benefits of spontaneous urban greenery:**

- temperature reduction
- food/habitat for wildlife
- erosion control/soil stabilization
- nutrient absorption
- disturbance adapted, able to colonize bare soil
- soil building on degraded land
- tolerance of pollution/contamination (pollution reduction through adhesion/absorption)

### **Characteristics allowing Spontaneous Urban Plants to succeed:**

- **FLEXIBLE** (in a aspects of growth and reproduction, from conditions under which they germinate to ability to flower and fruit)
- **OPPORTUNISTIC** (ready to take off when conditions are right- sprouting early, growing fast when resources are available, reproducing quickly, producing lots of seeds)
- **TOLERANT** (of stressful conditions, salt or high ph, compacted soil, wide range of light levels, wide temperature swings)

### Additional species present in the sanctuary include:

*Acalypha rhomboidea* (rhombic copperleaf)\*  
*Achillea millifolium* (yarrow)  
*Amaranthus retroflexus* (redroot pigweed)  
*Cardamine hirsuta* (hairy bittercress)\*  
*Commelina communis* (asiatic dayflower)  
*Coronilla varia* (crown vetch)\*  
*Digitaria ischaemum* (smooth crabgrass)  
*Echinochloa crus-galli* (barnyard grass)\*  
*Erechtites hieracifolia* (fireweed)  
*Hieracium sabaudum* (New England hawkweed)  
*Melilotus alba* (sweet clover)\*  
*Plantago lanceolata* (buckthorn plantain)  
*Polygonum cuspidatum* (Japanese knotweed)  
*Portulaca oleracea* (common purslane)  
*Rumex crispus* (curly dock)  
*Senecio vulgaris* (Common groundsel)  
*Seteria viridis* (green foxtail)\*  
*Trifolium pratense* (red clover)  
*Vicia cracca* (bird vetch)  
*Lactuca serriola* (prickly lettuce)\*  
*Dysphania ambrosioides* (epazote)  
*Erodium cicutarium* (stork's bill)

\*or a similar/related species (warning: amateur botanist at work!)

### Other spontaneous plant species living in Bushwick include:

*Ambrosia artemisiifolia* (common ragweed)  
*Asclepias syriaca* (common milkweed)  
*Solanum dulcamara* (bittersweet nightshade)  
*Taraxacum officinale* (dandelion)  
*Polygonum scandens* (false buckwheat)  
*Paulownia tomentosa* (princess tree)  
*Symphotrichum ericoides* (heath aster)  
*Phragmites australis* (common reed)  
*Rhus typhina* (staghorn sumac), *R. copallina* (shining sumac)  
*Silene latifolia* (white campion)  
*Cichorium intybus* (common chicory)  
*Lepidium virginicum* (virginia pepperweed)  
*Alliaria petiolata* (garlic mustard)  
*Xanthium strumarium* (common cocklebur)  
*Solidago canadensis* (Canada goldenrod), *S. sempervirens* (seaside goldenrod)  
*Ageratina altissima* (white snakeroot)  
*Conyza canadensis* (horseweed)  
and many more!

## A SELECTION of RESOURCES, REFERENCES, MUSES

\* plant-human relations \* hybridity \* weediness \* urban ecology \* the Anthropocene \*

### Articles

- Peter Del Tredici, “Flora of the Future”, *Places Journal Wild Urban Plants of the Northeast: A Field Guide*
- Donna Haraway, “The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others”
- J.L. Hudson, “Natives versus Exotics: The Myth of the Menace (Non-native species as allies in biodiversity)”, [jludsonseeds.net](http://jludsonseeds.net)
- Brandon Keim, “The Wild, Secret Life of New York City”, *Nautilus*
- Joe Mascaro, “Earthmakers: The Ancient Practice of Ecosystem Creation”, *Breakthrough Journal*
- Emma Marris: “Handle with Care”, *Orion Magazine*
- WJT Mitchell, “The Imperial Landscape”, *The Imperial Landscape*
- Michael Pollan, “The Intelligent Plant”, *The New Yorker*
- Christoph Rupprecht, “It’s real, not fake like a park: Informal greenspace as anti-gentrification strategy?”

### Books

- Stuart K. Allison, *Ecological Restoration and Environmental Change: Renewing Damaged Ecosystems*
- Ursula Beimann and Paolo Tavares, *Forest Law / Selva Jurídica*
- Octavia Butler, *Lilith’s Brood*
- Rachel Carson, *Silent Spring*
- George Gessert, *Green Light: Toward an Art of Evolution*
- Jon Luoma, *The Hidden Forset: A Biography of an Ecosystem*
- Charles C. Mann, *1491 and 1493*

**Works and writing** by artists Ursula Beimann, Beatriz da Costa, Agnes Denes, Oliver Kellhammer, Mary Mattingly, Jan Mun, Mierle Laderman Ukeles, Hans Haacke, Helen and Newton Harrison, Claire Pentecost, Alan Sonfist, herman de vries, and Saya Woolfalk.

**Conversations and field visits** with theoretical ecologist Sasha J. Wright, field biologist Paul CaraDonna, and tropical ecologist Amy Berkov.

**Conversations and/or collaborations** with New York City-based artists Andrea Haenggi, Chris Kennedy, Catherine Grau, Rena Lee, Anne Perco, and Miriam Simun.