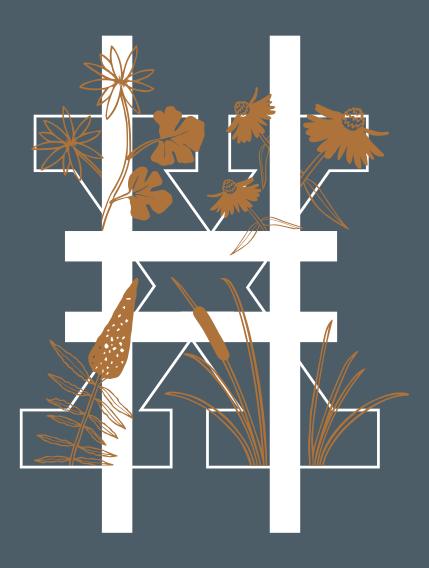
# **CELEBRATING**

# **Medicinal Plants**



**HIGH LINE** GARDENS

# AN ELEVATED APOTHECARY

This September, we're celebrating the past, present, and future of medicinal plants. Simone Leigh's *Brick House*, the first High Line Plinth commission, inspired the month's theme. Leigh's 16-foot-tall bust of a Black woman reminds us that resiliency requires community and self-care—and medicinal plants often contribute to these essentials

We've highlighted 20 plants from our gardens—both individual species and entire genera—with rich historic and social relevance for our communities. Across generations and regions, plants have offered sustenance to our survival.

Read on to learn more about these health-helpful plants in our gardens. And, use this guide as you walk along the High Line—there are informational signs along the way to help you identify the plants and learn about their use in herbal medicine.

Celebrating Medicinal Plants is made possible, in part, by the support of TD Bank, the Presenting Green Sponsor of the High Line.



Every time you drink chamomile tea before bed, mint tea when your stomach hurts, or when you wash your hair with tea tree oil, you're practicing herbal medicine.

The use of herbs for health dates back to the Paleolithic era, over 60,000 years ago. The first written evidence of herbal medicine dates to the Sumerian culture in 3,500 and c. 3.000 BCE.

The first recorded physic garden—a garden of medicinal plants for botanical study—dates to the sovereignty of Charlemagne—the king of the Franks and Lombards, and emperor of Rome in the late 700s to early 800s CE.

Some early physic gardens include Pope Nicholas V's Vatican medicinal garden from 1447; Matthaeus Silvaticus' gardens in Venice and Salerna in 1334; Cosimo Medici's garden in Pisa in 1544 (which was codirected with Luca Ghini, the first botanist to create an herbarium for plant and seed study, as well as the first botanical garden in Europe); and Henry IV's 1593 garden in Montpelier, France. In 1801, David Hosack created the Elgin Botanic Garden, the first public botanical garden in New York City where Rockefeller Center now stands.

However, herbal medicine in New York and North America goes back much further. Plant medicine was embedded in the lives of the native Manhattan tribe, the Lenape. Some of their important medicines can be found on the High Line—such as sumac, eastern red cedar, and cattail.

The Great Plains tribes constructed Medicine Wheel gardens in concentric circles with four lines of stones (or cairns) representing north, south, east, and west that created pie-shaped planting beds. These medicinal gardens played a specific spiritual role for native healing practices and were imbued with symbolism. Some tribes planted only medicinal or spiritual plants while others included culinary and ornamental species as well. Each garden was personalized to the tribe, and the contents mirrored the spirit of the people.

In part because of the practices' roots in Native American and Black culture, and women's healing, herbal medicine is wrapped up in a history of social oppression—through politically motivated accounts of healing herbs as witchcraft or "snake oil."

The Renaissance "medical revolutionary" Paracelsus popularized the Doctrine of Signatures, which remained a principle of herbalism for centuries—to the detriment of many patients.



The theory states that a plant treats the ailment that it resembles—bloodroot was thought to treat blood disorders, for example. But it was wildly wrong and dangerous, triggering many ill-prescribed deaths or further exacerbated illnesses.

The FDA still doesn't acknowledge the effects of herbs on certain ailments but this stigma seems to be lifting in the United States, as we see with the plethora of herbal teas available in our grocery stores, rising interest in aromatherapy, and inclusion of plants in many of our household products like cleaners and soaps. In Asia, statistics show that 80% of the population uses herbs as some sort of remedy. Around the world, and across cultures, the practice of herbal medicine is long lasting.

The most common and simplest way to take an herbal remedy is in its distilled and steeped form: a tea. However, there are many herbs that cannot be taken internally without medical supervision, or that work best topically. These are taken as a salve, or an ointment made from mixing the herbs in oil to rub on the skin, a poultice, or when the macerated herbs and their liquids are applied directly to the skin, and as aromatherapy.

\*While most herbs prescribed today are safe, it's important to become an informed patient and to consult a professional. Counterindications vary based on the individual.

# Find our selected medicinal plants on the following pages.

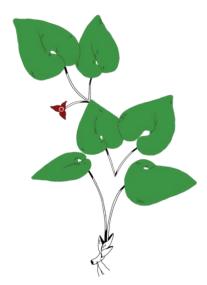
Please leave the plants on the High Line in place.

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Notes

# Mugwort

Artemisia vulgaris

**LOCATION:** Interim Walkway

moon god, Artemisia was the top medieval ward against evil spirits. Legend says that Roman soldiers placed mugwort in their sandals to prevent exhaustion; John the Baptist supposedly wore a mugwort girdle to protect him on his journeys.

Indigenous North American peoples prized mugwort as a bitter tea taken to treat colds and fevers, and applied as salves to treat bruises, sores, itching, and body odor. It was also believed to regulate menstrual cycles, help with delivery, and induce abortions, giving the plant its nickname, "women's sage."

Today, it's taken by interested sleepers to induce lucid dreaming.

Pollinators love this plant

# Wild ginger

Asarum canadense

**LOCATION:** Meadow Walk, Philip A. and Lisa Maria Falcone Flyover

HISTORY & USE: European settlers to the Americas learned many medicinal herbal techniques by observing Native Americans. Meriwether Lewis applied wild ginger to treat skin inflammations on his famous exploration of the Louisiana territory in 1806 after witnessing this use among the local tribes.

Other tribes ingested infusions of wild ginger to spur menstruation, induce sweat to break a fever, alleviate earaches, and regulate heartbeats.

Today, people everywhere use ginger to treat intestinal complaints like stomach aches, cramps, and indigestion.

#### Yarrow

Asteraceae

LOCATION: Meadow Walk, Eastern Rail Yards

HISTORY & USE: Known among European herbalists as the "master of the blood," and in New Mexico as plumajillo (Spanish for "little feather"), yarrow has been applied since antiquity to stop the flow of blood from wounds. In classical Greece, Homer recounts the centaur Chiron, who passed on herbal secrets to his students—including the warrior Achilles, who used yarrow on the battlegrounds of Troy for protection. This is the figure who lends this mighty plant remedy its scientific name.

The Navajo used yarrow for toothaches, the Pawnee and Miwok for general pain relief, the Cherokee for reducing fevers, and Ojibwe for headache and in spiritual ceremonies.

Herbalists today use yarrow to break fevers, improve circulation, and reduce heavy menstrual bleeding.

Pollinators love this plant

#### Birch

Betulaceae

LOCATION: Gansevoort Woodlands, Chelsea Grasslands, Chelsea Thicket, Wildflower Field & Radial Plantings

HISTORY & USE: Whether taken as a tea or decoction—birch is an excellent tonic and detoxifier, mainly beneficial for removing waste from the urinary system, as in kidney or bladder stones and gout. It reduces fluid retention and swellings, and the vernal sap is a diuretic.

Birch wood has been used for centuries to relax muscles, and is still used in many saunas today, especially throughout Russia.

Birch sap makes a thirst-quenching addition to wine, beer, and spirits.

# Coneflower

Echinacea

LOCATION: Washington Grasslands, Hudson River Overlook Full list of locations on pg 14.

HISTORY & USE: Echinacea may just be the face of contemporary herbal medicine. Professional herbalists, amateur practitioners, and skeptics alike use this spiky and sunny flower as a precautionary measure against the common cold.

The Cheyenne and Kiowa used the "hedgehog plant" for sore throats, the Pawnee for headaches, and the Lakota as a pain medication—for both humans and horses. This healing herb was taken as a fresh juice, smoke, or chewed to activate its healing properties.

In the late 1800s, Eclectic Medicine practitioners in the United States widely exalted Echinacea—it quickly became their number one prescribed herb.

Pollinators love this plant

# Witchhazel\*

Hamamelidaceae

LOCATION: Washington Grasslands, Chelsea Thicket, Eastern Rail Yards

HISTORY & USE: The "witch" in witchhazel stems from the Old English wice, meaning "pliant" or "bendable." In fact, the plants' twigs were once used as divining rods.

Witchhazel is most effective as a tincture (an extract of the plant that is dissolved in ethanol, forming a concentrated liquid form of the plant). Herbalists today mostly use this plant as external applications to heal wounds, varicose veins, psoriasis, and eczema.

\*Those pregnant or breastfeeding are advised to avoid witchhazel.

# Eastern red cedar\*\*

Juniperus virginiana

LOCATION: Chelsea Thicket, 23rd Street Seating Steps, Wildflower Field. Full list of locations on pg 14.

HISTORY & USE: Many eastern Native Americans, including the Lenape, smudged with red cedar in cleansing ceremonies for spaces, objects, and people. Native-Hispanic traditions used the tree for their cleansings, called limpias.

Eastern red cedar is now mostly used as aromatherapy for nightmares and anxiety because of its strengthening and comforting smell.

The bark and twigs provide a pleasant cinnamon-like flavor to any herbal blend.

- \*A key Lenape plant remedy
- †Those with kidney issues should avoid Eastern red cedar.

#### Mint

Lamiaceae

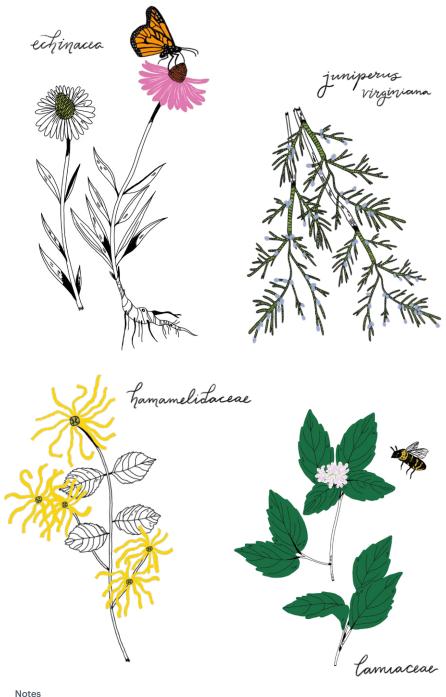
**LOCATION:** Washington Grasslands, Chelsea Grasslands, Wildflower Field Full list of locations on pg 14.

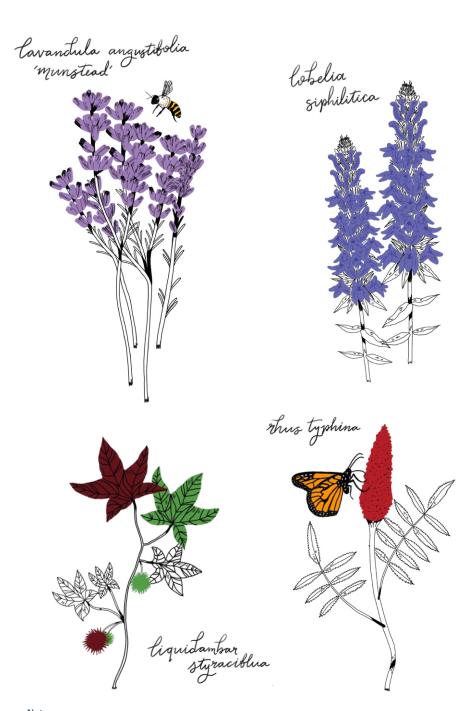
**HISTORY & USE:** The name "mint" derives from the Greek dyad Minthe, lover of Hades, the Greek god of the underworld. From her death sprang the pernicious groundcover we now know as mint.

As aromatherapy, mint oil alleviates nausea, relaxes the nerves, treats headaches by shrinking inflammation, improves circulation, and increases energy. It's also used topically as an insecticide. Taken internally as a tea or chewed, mint eases digestion, cures morning and motion sickness, and helps ease gas and heartburn.

The plant's leaves contain calcium, magnesium, and phosphorous-the essential ingredients for tooth health.

Pollinators love this plant





**Munstead English lavender** 

Lavandula angustifolia 'Munstead'

**LOCATION:** Eastern Rail Yards, Crossroads, Pershing Square Beams

HISTORY & USE: A common favorite of fragrance aficionados and aromatherapy enthusiasts. The essential oil of this aromatic plant can soothe inflamed skin, calm the nerves, and kill many common bacteria (such as typhoid, streptococcus, and diphtheria). The plant produces an abundant nectar, and honey made from lavender makes a delicate addition to any larder. Queen Elizabeth I's favorite spread for morning toast was a jam made with the flowers.

Pollinators love this plant

**American sweetgum** 

Liquidambar styraciflua

**LOCATION: Spur** 

HISTORY & USE: As a tree with many names, you can identify the sweetgum no matter what you call it: American storax, hazel pine, bilsted, redgum, satin walnut, or alligator wood. Its Nauhtl name is Ocotzocuahuitl, meaning "the tree that gives pine resin," for the fragrant juice that's secreted from the tree's interior. This liquid amber gives the sweetgum its scientific name: liquidambar (from Latin liquidus, for "liquid," and Arabic anbar meaning "fragrant").

This amber can be applied topically to sores, wounds, and scabies. Internally, herbalists use this resin to remove parasites from the body; it's also an ingredient in Friar's Balsam, a liquid benzoin used to treat coughs. Caretakers use the crystallized form of amber to soothe teething babies.

#### Great blue lobelia

Lobelia siphilitica

LOCATION: Spur

HISTORY & USE: In the mid-1700s, Superintendent of Native American Affairs Sir William Johnson sent samples of the "Indians' cure for syphilis" to Europe for study. At the time, "the pox" was rampant in the colonies. Johnson noticed the Iroquois using lobelia as treatment for the venereal disease (the Cherokee used lobelia to induce vomiting, as a love potion, and to cure whiskey habits). However, European physicians couldn't find a connection between the plant and syphilis treatments. Regardless, Carl Linnaeus, the father of binomial nomenclature, gave the plant its epithet siphilitica.

We now know that the "gag root" encourages vomiting because it contains lobeline, a poisonous alkaloid related to nicotine.

# Staghorn sumac\*

Rhus typhina

LOCATION: Diller – von Furstenberg Sundeck & Water Feature, Hudson River Overlook, 34th Street Entry Plaza

HISTORY & USE: The Lenape mixed sumac into tobacco for smoking—their name for the plant, *Kelelenikanakw*, meaning "mixture tree," suggests this usage. They also used sumac for teas, dyes, and external applications to remedy sore throats, toothache, and arthritis. This important Middle Eastern cooking spice, which is high in vitamin C, lends a vinegar-like flavor to salads, meats, and grains.

Sumac berries have been shown to moderate hypoglycemia, and in turn keep diabetes in check. They can also lower bad cholesterol, prevent atherosclerosis, strengthen the kidneys, and reduce menstrual cramps.

\*A key Lenape plant remedy Pollinators love this plant

#### Rose

Rosaceae

LOCATION: 10th Avenue Square, Chelsea Thicket

HISTORY & USE: Roses date back to 500 BCE Asia and have been prescribed for centuries as a pre-modern medicine. Roses are a nervine, meaning they de-stress the body through the central nervous system. As an aromatic, the beloved rose eases depression, anxiety, broken hearts, and insomnia.

The fruits of the plant, known as rosehips, are high in heart-healthy omega 6s, as well as immune system boosting vitamins C, K, and E.

Pollinators love this plant

# **Eva Black elderberry**

Sambucus nigra f. porphyrophylla 'Eva'

**LOCATION:** Chelsea Thicket

HISTORY & USE: Native American and European herbalists have revered and relied on the Sambucus genus since the fifth century CE. Native Americans used the branches of the elderberry bush to make flutes, giving it the moniker "the tree of music."

The berries are high in vitamins A and C and contain the flavonoids quercetin and rutin—powerful antioxidants with anti-inflammatory and immune system benefits.

The distilled liquid of elderberry makes a favorite digestif around the world—behind many bars, find elderberry's most common alcoholic iterations, St. Germain and Sambuca.

Pollinators love this plant

#### Sassafras\*

Sassafras albidum

LOCATION: Chelsea Thicket, Philip A. and Lisa Maria Falcone Flyover, Wildflower Field & Radial Plantings

HISTORY & USE: The "mitten tree," as sassafras was called by the Lenape, falls into the Native American category of "spring medicine." These plants help ready the body for hot summer weather. Sassafras leaves can be dried and ground into teas or poultices, and the boiled and steeped bark reduces fevers and swelling, soothes childbirth pain, and decreases excess mucus. It was also once used to treat syphilis and gonorrhea.

Sassafras wood and oil functioned as some of the earliest forms of dentistry. Today, this citrusy-spicy root is still used to relieve tooth pain, repel bugs, and as a fragrance in perfume.

\*A key Lenape plant remedy Pollinators love this plant

# Skullcap

Scutellaria

**LOCATION:** Northern Spur Preserve, Eastern Rail Yards, 34th Street Entry Plaza

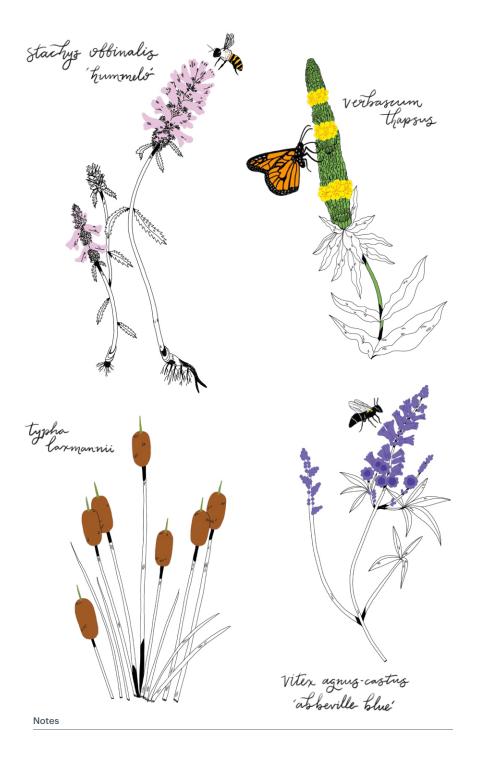
HISTORY & USE: Skullcap, yet another member of the vast mint family, is prescribed in traditional Chinese medicine for "clear[ing] away the heat-evil and expel[ling] superficial evils." European settlers in the Americas in the late 1700s promoted the herb as an antidote for rabies, which gives the plant one of its names: "mad dog weed." This claim was later debunked.

For over 2,000 years, herbalists have used *Scutellaria* as a remedy for conditions like hepatitis, diarrhea, and inflammation.

It's always been a hot commodity and the skullcap rage continues today, which has led to the abuse of the wild plant and thus to its rarity.

Pollinators love this plant





# **Hummelo hedgenettle**

Stachys officinalis 'Hummelo'

**LOCATION:** Gansevoort Woodlands, Dillervon Furstenberg Sundeck & Water Feature

HISTORY & USE: Hedgenettle, aka wood betony, was the most important herb of the Anglo Saxons in medieval England. Apothecaries and monasteries always grew hedgenettle in their physic gardens (gardens for the study of medicinal plants).

At the time, hedgenettle was believed to deter what the herbalist treatise *The Anglo Saxon Herbal* calls "frightful nocturnal goblins and terrible sights and dreams," otherwise known as nightmares.

It's also claimed to be effective against snake and dog bites and a cure for drunkenness. The English botanist and herbalist from the late 14th century John Gerard said that the plant "maketh a man to pisse well."

Contemporary herbalists prescribe betony to treat anxiety, gallstones, heartburn, high blood pressure, migraines, and chronic pain.

Pollinators love this plant

# Cattail\*

Typha laxmannii

**LOCATION:** Diller – von Furstenberg Sundeck & Water Feature

HISTORY & USE: Because corn was sacred to the Lenape, they didn't make corn husk dolls like many other tribes; instead, they used the leaves of the cattail to construct these important charms. They also stuffed cattail into pillows and mattresses, and turned them into covers for their wigwams.

The Lenape ate the leaves and roots (which taste similar to asparagus) and ground the plant and the jelly from its leaves into a poultice to treat itchy skin, spider bites, boils, and to remove bacteria from wounds.

\*Important Lenape plant remedy

# Common mullein

Verbascum thapsus

**LOCATION:** Interim Walkway

HISTORY & USE: Two thousand years ago, the Greek pharmacologist and botanist Dioscorides first recommended mulleins to treat lung conditions. The ancient Romans washed and dyed their hair with mullein, and rolled the leaves into tallow for torch wicks, hence the plant's nicknames: the "candlewick plant" and "torches." For centuries, mullein leaf was used to ward off evil spirits, instill courage and health, attract love, and ensure fertility.

The Abnaki tribe turned the root into a necklace for teething babies, the Cherokee applied the leaves as a poultice for cuts and swollen glands, and the Navajos and the Amish smoked mullein, or "big tobacco."

It's now used most commonly among herbalists for promoting sleep and calming the nerves.

Pollinators love this plant

# Abbeville Blue chaste tree

Vitex agnus-castus 'Abbeville Blue'

**LOCATION:** 23rd Street Lawn and Seating Steps

HISTORY & USE: According to first century CE Roman author and naturalist Pliny the Elder, Vitex was sacred to the virginal Roman goddess of the hearth Vesta, and was prescribed to "cool the heat of lust."

Ever since, herbalists have been recommending chaste tree as an anaphrodisiac—an herb that lowers the libido; it's also commonly prescribed to boost progesterone and thus promote ovulation and steady irregular premenstrual cycles.

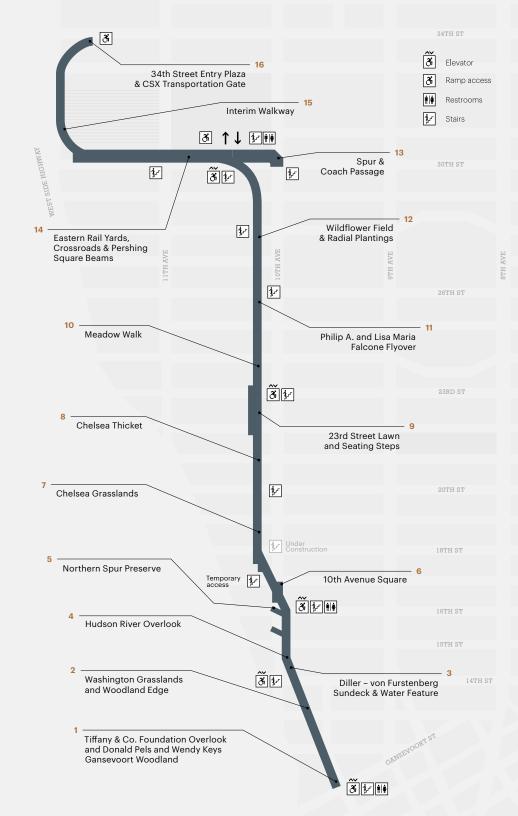
This small tree with its showy blue blooms attracts more than humans though—it's an important nectar source for pollinators, especially butterflies.

Pollinators love this plant

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From tours to guest apothecaries, collaborative medicine wheel gardens to herbal consultations, join us in celebrating medicinal plants this month.

#### TOURS

Medicinal Plants on the High Line Thursdays in September Sept. 5, 12, 19 & 26 6–7pm, FREE Take a guided tour of some of the medicinal and utilitarian plants of the High Line's collections. Led by one of our staff horticulturists, this tour is appropriate for all age groups. Please dress appropriately for the weather.

Thursday evening tours will depart from on the High Line at Gansevoort Street.

#### SEPTEMBER 21 WELLNESS FAIR

Drop-in workshops 10am-1pm Tours 10:30 & 11:30 On the High Line at the Spur, FREE Create Caribbean plant medicine with Suhaly Bautista-Carolina of Moon Mother Apothecary, turn everyday pantry items into remedies with Yemi Amu of Oko Farms Aquaponics Center, receive mini health consultations from Herbal Underground, use yarrow and mugwort to set boundaries with MINKA Brooklyn, make a collaborative medicine wheel garden with High Line staff, and more.

At 12:30 enjoy a performance by Batalá: an all-women Afro Brazilian percussion ensemble.

To register for our events visit: **thehighline.org/MedicinalPlants** 

To learn more about our gardens visit: **thehighline.org/gardens** 

#### **MEDICINAL RESOURCES**

#### BOOKS

# Rosemary Gladstar

Herbal Healing for Women

#### **Matthew Wood**

Book of Herbal Wisdom: Using Plants as Medicine

#### **Eric Sanderson**

Mannahatta: A Natural History of New York City

#### **WEBSITES**

Plants for the Future pfaf.org

**Lady Bird Johnson Wildflower Center** wildflower.org

# Moon Mother Apothecary

moonmotherapothecary.com

#### NYC HERB STORES

#### Flower Power

406 E 9th St, New York, NY 10009

#### Radicle Herb Shop

394 Atlantic Ave, Brooklyn, NY 11217

#### Antidote Apothecary + Tea Bar

200 Franklin St, Brooklyn, NY 11222

#### Sacred Vibes

5402 376 Argyle Road, Brooklyn, NY 11218

#### HERBAL MEDICINE GROUPS

# Herbal Underground

herbalundergroundnyc.com

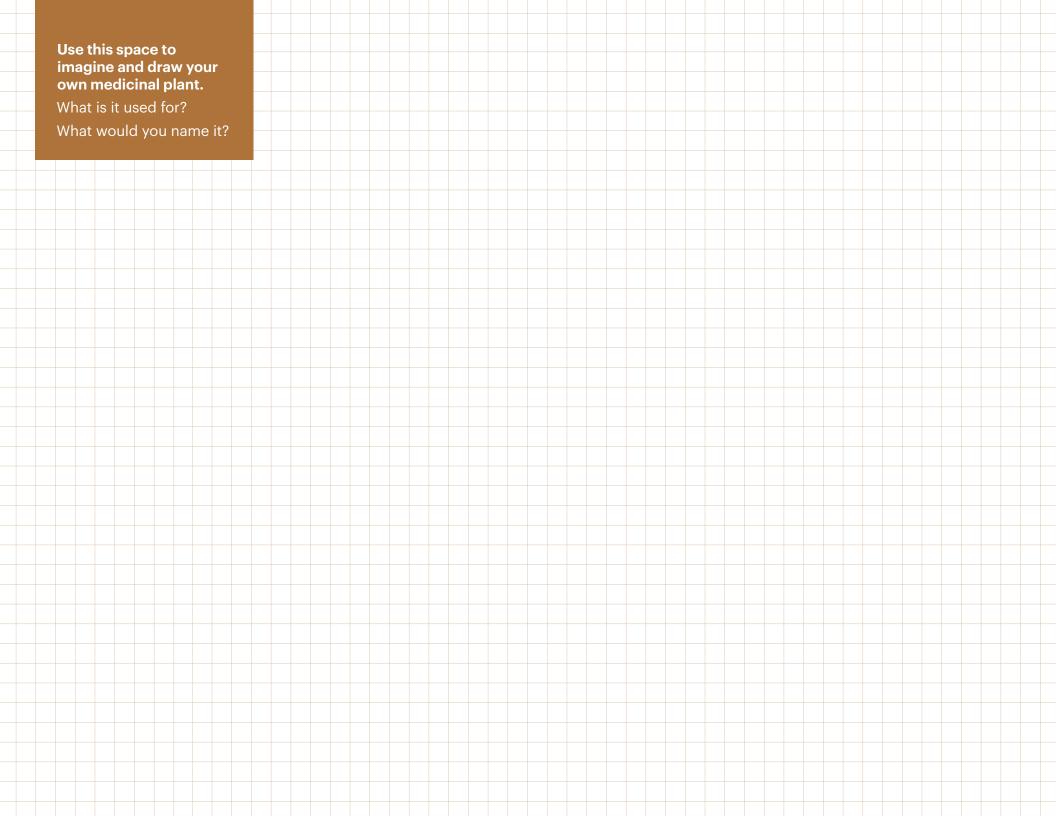
# Harriet's Apothecary

harrietsapothecary.com



Illustrations by Aleesha Nandhra

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