



Levana Katz



This project began in late summer, when sumac bushels were full, amaranth burned red, and golden rod shone in evening sun. Searching for ink materials, I looked down as I walked, drawing a mental map of abundant points in the city to collect goods. The fold-up scissors on my keychain turned rusty from use. I felt precious about certain sumac trees growing on the sides of highways, of train tracks.

As fall approached, my freezer filled with loot : yogurt containers full of sumac berries, flowers, leaves, acorn tops. Very soon it was winter, and visits to the grocery store became a source of material collection. I bought onions in bulk, saving skins as I cooked to make ink with later. I willingly bought avocados, noting it was worth it if I got to use the skins. I saved coffee grounds every morning to boil again later.

Eventually, it warmed up again, and new growth brought new colours. Mostly greens, in the spring. Burdock and dandelion covered the ground below. I looked down again, searching intently. You have to be a bit greedy for this activity. I finished the research for this project the week that cherry blossoms rained to the ground, pink petals filling up the potholes and cracks in the sidewalk. Lilacs steeped the heavy air, and spirea exploded in every park.

The research and recipes in this zine are the culmination of a year of collection in Montreal. Each color reflects a time and place, yielding results that might shift with any other season or location. Thank you to the team at FOFA for making this research possible - I am excited to share these notes, recipes, and research so you can make your own natural screenprinting inks at home.

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Josh Jensen :
Foraging p.1 & 22
Foraging p.20

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Making Natural Screenprinting Inks

Dye stuff + Concentrate

Natural inks are made from rich concentrates extracted from plants, flowers, and other organic matter, which are then mixed with a binder or substrate. Ink extracts require a lot of collected material, so here are some notes on gathering materials. Foraging in the city can take on multiple forms. When collecting plants outside, it's important to work with things that are naturally abundant and not endangered or sparse. Gathering the same material from more than one site is a great way to collect. Using invasive species is encouraged!

In colder months, foraging can become a process of accumulation in the kitchen; your projects can grow from cooking scraps by collecting coffee grounds, onion skins, and avocado peels over time. Freezing these materials is a good way to store them until you're ready to use them. During my research, I focused on materials that were accessible and available to me over different parts of the year, because I want this process to feel readily available, and easy to replicate. My neighborhood and immediate environment were surprisingly abundant.

For ink extracts, there is an endless list you could use for colours;

Sumac * Goldenrod * Acorn tops * Onion skins
* Avocado skins * Coffee grounds * Dandelion *
Burdock leaves * Marigold * Amongst many more.

Further references and ideas can be found in the resource list at the end of the zine.

For the ink produced for this zine, I used sumac berries and leaves (with and without iron) burdock with iron, dandelion, acorn tops, goldenrod flowers, and coffee grounds.



Sun bleach burdock leaf

Equipment

Recipe notebook ;)

Dye pot

Coffee filters

Jars

Rubber gloves

Wooden spoon

Rubber spatula

Sieve

Kitchen scale

Blender

Wintergreen oil or clove oil

Wheat flour

Glutinous rice flour

Nori paste

Sushi rice (or jasmine rice if you don't have any)

Materials

Gum arabic powder

Alum (easily available at Jean Coutu if you live in Quebec)

Ferrous Sulfate, or homemade iron solution



picture : pot of sumac berries, sifted and simmering

Extracting pigment requires a lot of substance for a rich color. I use a 1:1 ratio, if possible, but oftentimes the material will absorb all the water and you will be left with a very dry pot and a difficult extraction process. If this occurs, you can always add more water to your pot, noting the changes to your recipe in your notebook as you go. My rule of thumb is having anywhere between 1 and 2 parts water, not exceeding that point. You don't want to dilute your colors too much or you'll have a very pale ink! This is why it's good to forage in abundance :)

Place 1 part dye stuff and 1 or 2 parts water (depending on density) in a pot.

Turn heat to high, until simmering, and then reduce heat to low and cover with a lid.

Let it simmer over low heat for 1 - 2 hours.

optional step strain with a sieve into another pot, put back on low heat, and mix in 3-5 g of alum. This improves the lightfastness of the ink, and adherence to what you print it on.

Strain through a sieve into a jar with a coffee filter, to remove fine particles. Can let sit overnight.

Use this concentrate to make screenprinting ink using one of the methods outlined below.

On Ratios

Plant Extraction Method

A note on Health and Safety

When working with mordants and metals, it's important to separate the equipment you use from your regular cookware. This means that all the equipment listed above should generally only be used for this purpose and not mixed back into your pantry afterwards. I bought all this at the thrift store over time, inexpensively, labeled it with a sharpie, and always wash it with a separate sponge, storing it separately when I'm done :)



coffee filters stained with coffee concentrate (top)
& sumac concentrate (bottom)



coffee filters stained with:
acorn concentrate (top),
sumac concentrate (middle),
& goldenrod concentrate (bottom)

Iron / Ferrous Sulfate is a super effective additive to gain dark, muted, saddened, and cool tones! Adding it to red sumac berries will give you a beautiful stony-grey tone, and to burdock leaves you'll get a swampy green. It's a great way to add tonal variety and depth to your palette with the materials available to you. You can use it in powdered form, available to order through Maiwa (see resources at the end of this zine), or as a liquid extract, recipe outlined below.

When working with Iron, it's important to remember that it's a metal, and should be handled with care - Make sure to wear gloves, and use equipment that you can thoroughly wash after, or you'll risk contaminating your future projects. The wooden spoon I use for iron is dyed dark blue black from use.

Place your concentrate in a pot over medium heat. Because we are working with such small quantities, this happens fast, so be careful not to let your concentrate evaporate!

Once simmering, turn the heat down to LOW.

Add the powdered iron sulfate in small batches (I like to add 3 g increments), mixing as you go.

Press out the lumps with a spatula, and stir until you've reached your desired depth of shade.

Strain into a jar with a coffee filter, to remove fine particles. Can let sit overnight. If there are remaining particles, strain again through a coffee filter.

Use this concentrate to make screenprinting ink using one of the methods outlined below.

Remember that anything that makes contact with iron will be stained dark, so make sure to wash your equipment very well with a sponge used only on dye equipment after use!



The recipe for this solution utilizes rusty items that you can gather while foraging, near train tracks, industrial areas, or other sites where you find your dye plants. If you can't find anything rusty, you can also use store-bought steel wool as a cheap, accessible alternative.

Recipe (Adapted from Last Minute Laura):

Rusty objects (the more you have, the richer your iron solution will be)

Jar or plastic container

1 part vinegar

3 parts water

Add collected rusty objects to your container

Add vinegar

Add water, making sure all the rusty objects are covered.

Close with a tight-fitting lid

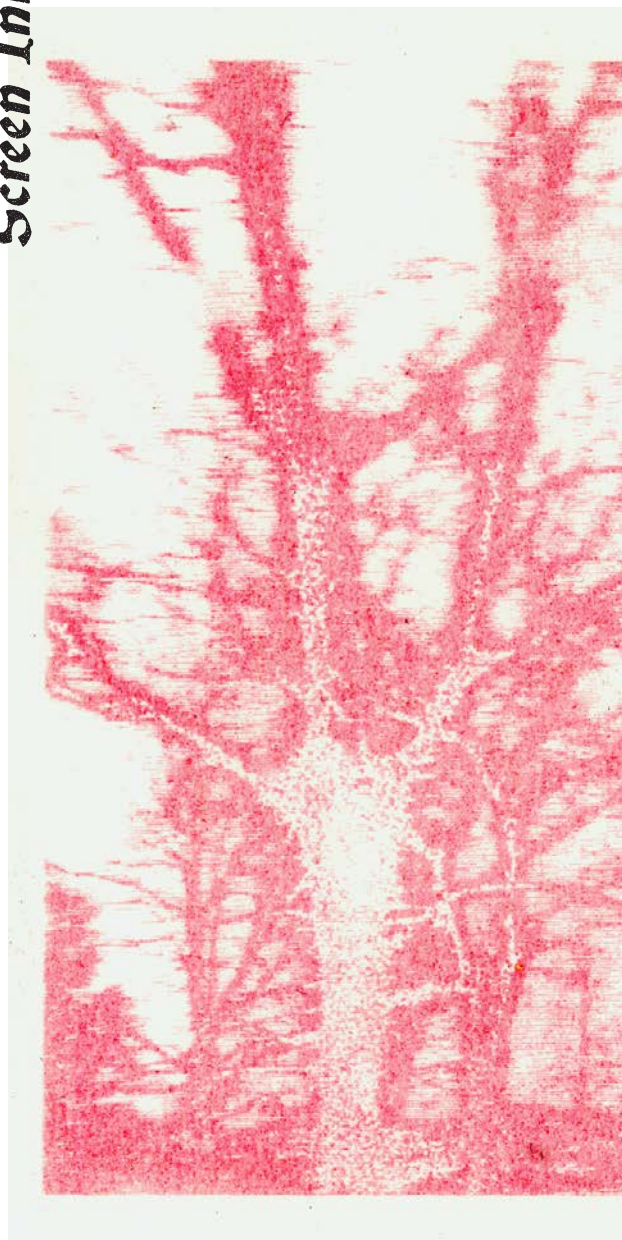
Once the solution turns orange, it is ready to use.

Can take between 1 & 3 weeks.

Screen Ink Recipes

Below is an array of ink recipes I've developed using rice, wheat flour, and gum arabic. Each binder brings and transparencies, which I've outlined below. You can bases depending on what is available to you and what

various substrates, including glutinous rice flour, whole grain its own physical properties, giving you a variety of textures experiment by mixing your concentrates with these different you are looking for in your ink.



sumac/wheat ink



goldenrod/gum Arabic ink

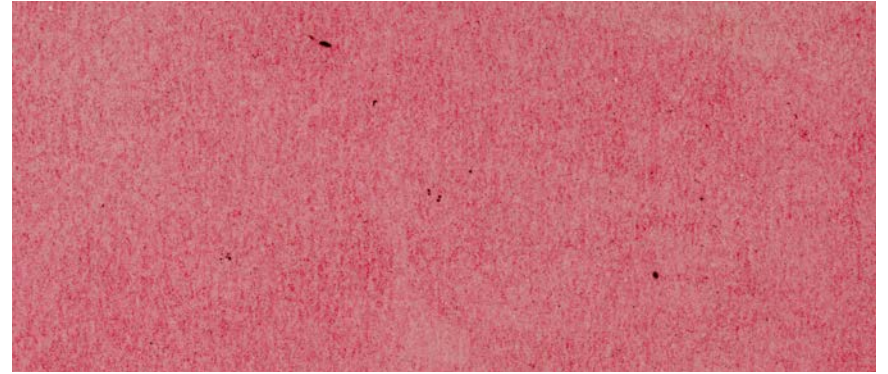


acorn/rice ink

Reliable wheat flour is a great alternative if you have no glutinous rice flour, no blender, or simply don't want to go through the hassle of blending rice into a paste. Wheat flour is prone to getting a bit chalky or pasty as it cooks, making it the thickest, least runny option. It's also naturally more opaque than rice flour, so keep in mind that it will give your colors a softer, more pastel quality.



sumac



Recipe:

15 g flour
100 mL concentrate

Yields about 75 g of screenprinting ink.

Place your concentrate in a pot over medium heat. Because we are working with such small quantities, this happens fast, so be careful not to let your concentrate evaporate!

Once simmering, turn the heat down to LOW.

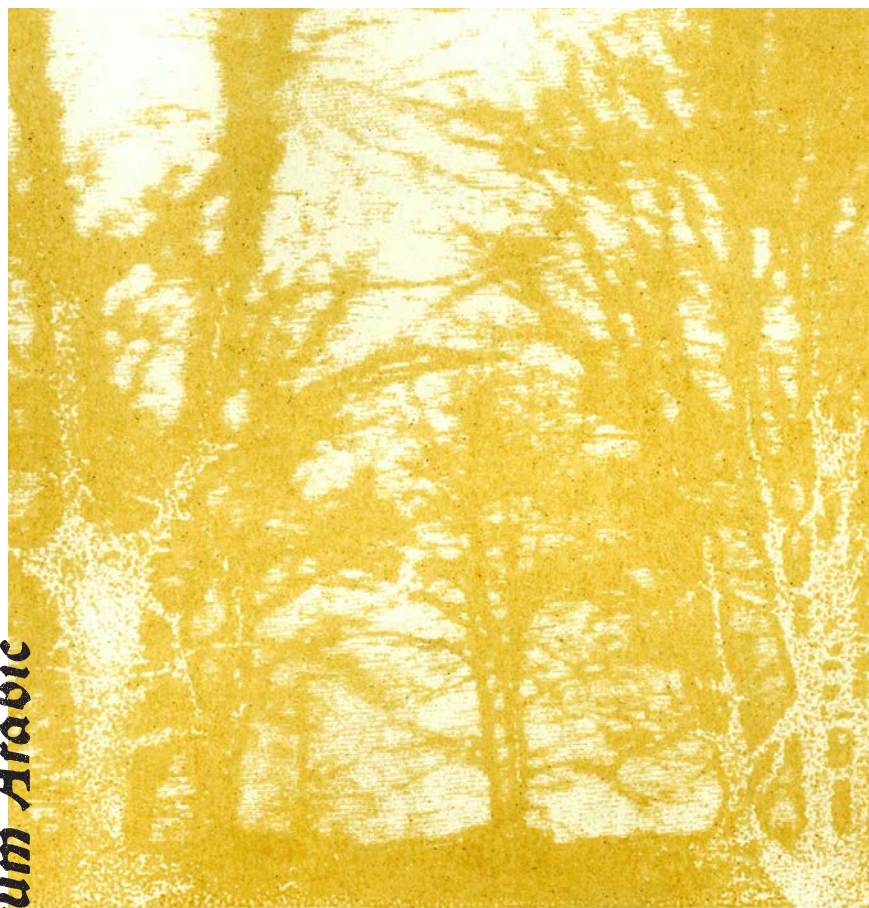
Sift the flour into the concentrate, in small quantities, through a sieve.

IMMEDIATELY start mixing (or the ink will coagulate), and stir until you've reached your desired texture.

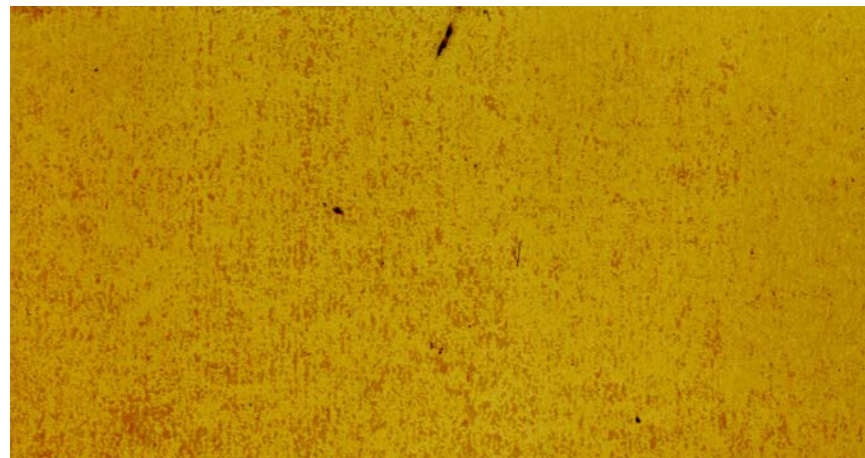
Take the pot off the heat immediately once the ink reaches its desired texture - if not, it will start to burn and change texture, and become too thick to print with!

Distribute into a container, add 3-5 drops of wintergreen oil, mix well, and store in the fridge. Stable for 1 month.

Gum arabic is a natural, edible plant resin harvested from the hardened sap of acacia trees. It is used in the production of food, and cosmetics, but I discovered it while learning lithography, because it is a very vital source during that process. Gum arabic powder is a great substance to make an ink-like texture, and a little goes a long way with this! It is sadly the least available to buy in a store, and is more available in specialty stores, or online. It is also more prone to bubbling on the surface when pushed through a screen during the printing process, whereas the other inks have more structural integrity and don't pool as easily.



goldenrod



Recipe:

35 g powdered gum arabic

50 mL concentrate

Yields about 45 g of screenprinting ink

Place your concentrate in a pot over medium heat. Because we are working with such small quantities, this happens fast, so be careful not to let your concentrate evaporate!

Once simmering, turn the heat down to LOW.

Add the gum arabic in small batches, mixing as you go.

Press out the lumps with a spatula, and stir until you've reached your desired texture.

Take the pot off the heat immediately once the ink reaches its desired texture - if not, it will start to burn and change texture, and become too thick to print with!

Distribute into a container, add 3-5 drops of wintergreen oil, mix well, and store in the fridge. Stable for 1 month.

This is my preferred recipe - texturally closest to store-bought screen ink, inexpensive, semi-transparent, quick and easy! If you do not have glutinous rice flour at home, it is quite available at any Asian grocery store. I bought mine at Marché Korea on St. Catherine West in Montréal.



acorn



Recipe (adapted from a ratio by Takara Crafts):

1 part rice flour (grams)

5 parts room temp water (mL)

7.5 parts ink concentrate, heated (mL)

Yields about 45 g of screenprinting ink.

Place your concentrate in a pot over medium heat. Because we are working with such small quantities, this happens fast, so be careful not to let your concentrate evaporate!

Once simmering, turn the heat down to LOW.

Mix together the rice flour and room temp water, smoothing out the lumps, so you have a slurry.

Add the rice slurry to the heated concentrate.

IMMEDIATELY start stirring with a spatula, whisk or wooden spoon (or the ink will coagulate), and continue until you've reached your desired texture.

Take the pot off the heat immediately once the ink reaches its desired texture - if not, it will start to burn and change texture, and become too thick to print with!

Distribute into a container, add 3-5 drops of wintergreen oil, mix well, and store in the fridge. Stable for 1 month.

Screen Ink Recipes

If you do not have glutinous rice flour, and would rather use the materials available at home, this method is great! It simply takes more patience and a good blender. Sushi rice is preferred for its sticky and glutinous texture, but jasmine rice also works. Avoid long grain rice.

Recipe:

¼ cup sushi rice

1 cup water (or concentrate, which will give you a richer colour)

Yields up to 150 g of screenprinting ink (can reduce into smaller batches).

Bring the rice to a boil, lower the heat, and cook for 45 mins to an hour.

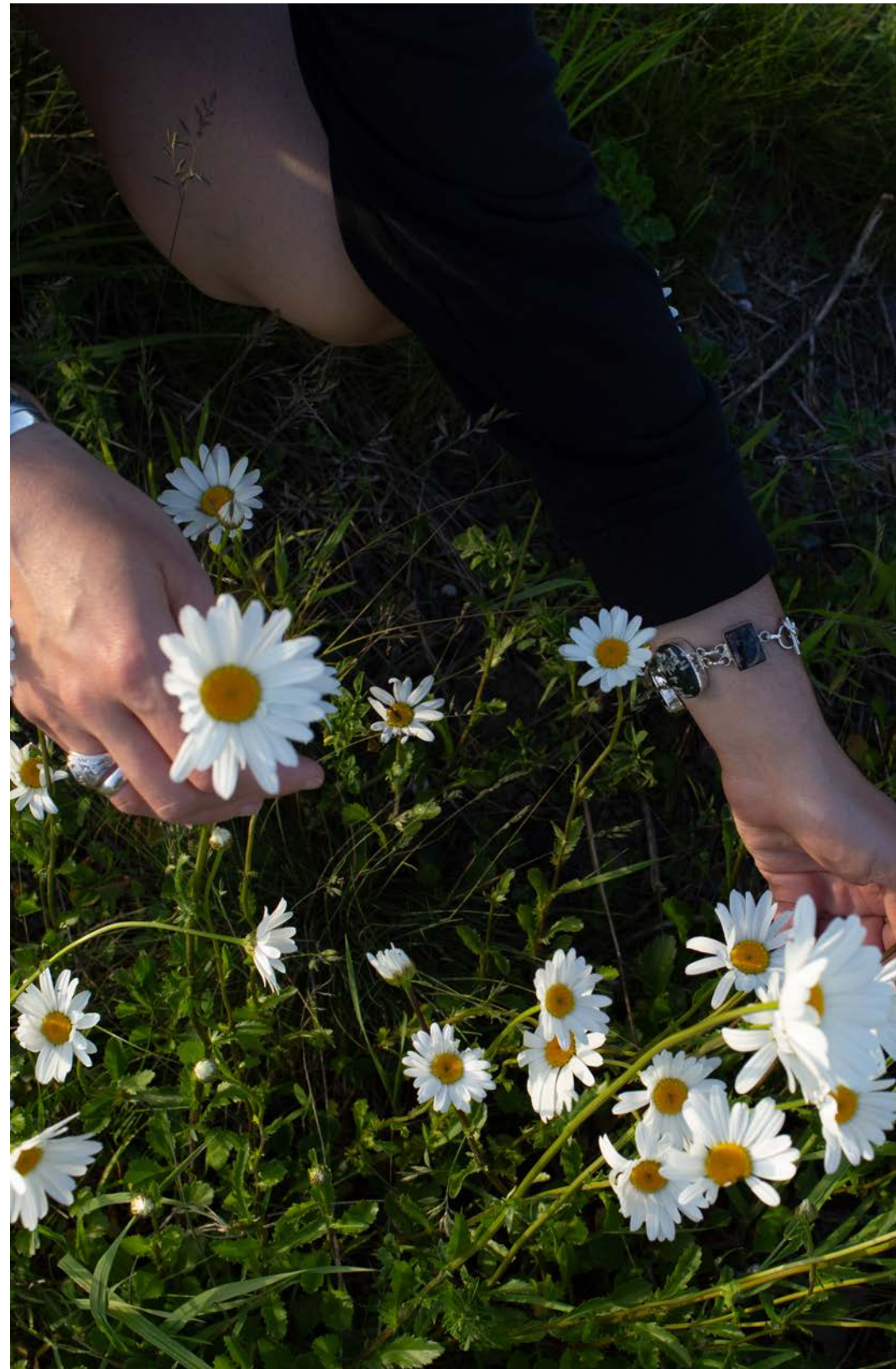
Once cooked, scoop the rice glue into a blender and blend until smooth with no lumps.

Rice (Sushi or Jasmine)

If you used water instead of concentrate initially, you can now add the rice mixture and concentrate back to the pot, on low heat, and stir until combined. The amounts that you add will depend on your desired colour, the more concentrate you add the richer it will be! Just continuously stir over very low heat until it is properly incorporated, and then remove it right away.

Distribute into a container, add 3-5 drops of wintergreen oil, mix well, and store in the fridge. Stable for 1 month.

* result are similare to glutinous rice recipe on the previous page



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credit:
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Levana Katz is
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Tiohtià:ke /
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Montréal, and
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Painting and
Drawing from
Concordia
University.

She works across drawing, printmaking,
sculpture and fibre arts within her installations.

Katz's work has been shown in several galleries
in Montréal, including Arprim, Ada X
and the FOFA Gallery. She was awarded the
Don Wright Scholarship (2023-2024) at St.
Michael's Printshop, relocating to St. John's,
Newfoundland. Upon return to Montréal she
completed a residency at L'imprimerie (2025),
awarded as the recipient of the Prix Albert
Dumouchel. Her work has been supported
by granting bodies such as the Canada
Council for the Arts, and the City of St. John's.
Alongside her artistic practice, Katz works as
an art educator at the Visual Arts Centre in
Westmount, and recently published an artist
book supported by the Museum of Jewish
Montreal.



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