

Science, Art, and You: Harnessing Creativity from Process to Project

Botany 2022, Anchorage AK
Sunday, July 24th, 8:00am - 12:00pm



Organizers:

Nicolette Sipperly, Stonybrook University
Patricia Chan, University of Wisconsin, Madison
Kasey Pham, University of Florida, Gainesville
Rosemary Glos, Michigan State University



Special thanks to:

Chris Martine
Diamanda Zizis

Isadora Frois
Liz Anna Kozik

Maria Cortez
Tyler Thrasher

Mona Carón
Sarah Friedrich

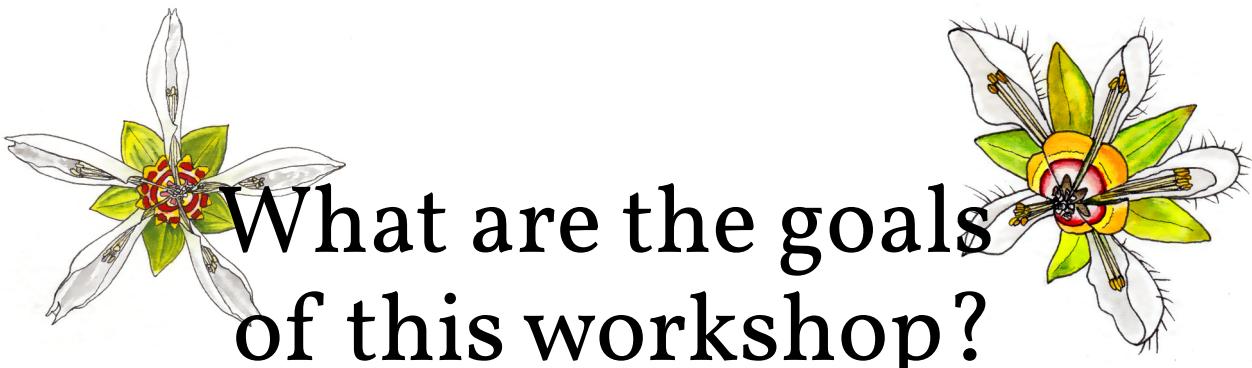
Artist: Patricia Chan

Table of Contents

<u>Pages</u>	<u>Content</u>
01	Goals
02-03	Schedule
04	About the Organizers
05-08	Panelists
09-10	Roll for Botany
11-14	Personal Reflection Exercise
15-16	Final Reflections

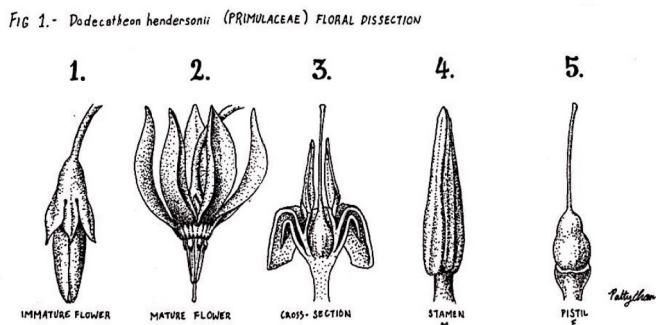


Artist: Patricia Chan



What are the goals of this workshop?

1. **Expand** the definition of botanical art by exposing participants to a wide variety of media, approaches, and philosophy.
2. **Examine** the notions of subjectivity/objectivity in science, particularly as they relate to creativity and personal connections to our work.
3. **Encourage** participants to explore how art can improve their research, science communication, and personal wellbeing as scientists!



I

Artist: Rosemary Glos, Patricia Chan

Today's Schedule

Part 1: Intro and presentations (8:00am - 9:50am)

Goals: Set roadmap for workshop, bring participants into a creative mindset, share (via panelists) a wide range of approaches to botanical art.

1. Brief Intro (8:00am - 8:05am)
2. Guided meditation (8:05am - 8:15am)
3. Intro to our philosophy and to presenters (8:15am - 8:20am)
4. Brief presentations by organizers (8:20am - 8:35am)

Order of presenters:

1. Chris Martine & Diamanda Zizis (8:38am - 8:53am)
2. Liz Anna Kozik (9:00am - 9:15am)

Artist:
Rosemary
Glos

-(*Coffee Break: 7 min*)-

3. Maria Cortez & Isadora Frois (9:18am - 9:33am)
4. Tyler Thrasher (9:36am - 9:51am)

-(*Coffee Break: 11 min*)-



Part 2: Guided exercises (10:00am - 11:00am)

Goals: Participants reflect on presentations and consider how they could integrate art into their own scientific process.

- a. Roll for Botany - concept by Tyler Thrasher (10:05am - 10:20am)
- b. Individual brainstorming exercise (10:20am - 10:35am)
- c. Group share & discussion (10:35am - 11:00am)

-(*Coffee Break: 5 min*)-

Today's Schedule (c.)

Part 3: Freeform development (11:05am - 11:30am)

Goals: Participants plan next steps for their own projects, sketch privately, discuss ideas with other participants and organizers.

- a. Informal private sketching time (11:05am - 11:15am)
- b. Brief meditation (11:15am - 11:20am)
- c. Concluding remarks and key takeaways (11:20am - 11:30am)
- d. Unstructured development and feedback (11:30am - 12:00am)



Gloriosa superba

Rosemary Glos 2020

Artist: Rosemary Glos

About the organizers

Nicolette Sipperly

Institution: Stonybrook University

Position: 6th year PhD student

Email: nicolette.sipperly@stonybrook.edu



Nicolette makes art to soothe her impulses to manipulate color and to find beauty. She uses the creative process to learn to slow down jumping thoughts and to practice identifying and detaching from unaligned thoughts and behaviors in order to move forward.

Patricia Chan

Institution: University of Wisconsin, Madison

Position: 4th year PhD student

Email: pwchan@wisc.edu | **Twitter:** @patyagonia | **Instagram:** @patyagonia

I try to weave art into my science learning in my class and field notes. I also make botanical art to teach my students plant taxonomy through ephemeral blackboard art.

Kasey Pham

Institution: University of Florida, Gainesville

Position: 4th year PhD student

Email: kasey.pham@ufl.edu | **GitHub:** kaseykhanhpham

Twitter: @kaseykpham | **Instagram** (personal): @tuongkhanhp

Art is first and foremost how I escape into my favorite worlds of giant robots and magic, but with how important it is to me, it's inevitable that it would inform how I communicate and do my science as well.

Rosemary Glos

Institution: Michigan State University

Position: 2nd year PhD student

Web: <https://rosemaryglos.wixsite.com/science-and-art>

Email: glosrose@msu.edu

Twitter: @rosemaryglos | **Instagram:** @salvia_rosmarinus

I use botanical art to relax, communicate her science, and gain a new perspective on plants through close observation.

Clarice Guan

Clarice was part of the founding group which conceptualized this workshop and they've since left academia.

Panelists: **Chris Martine** **& Diamanda** **Zizis**

Check in with yourself!

I'm feeling: _____

(Excited? Sleepy? Antsy?)

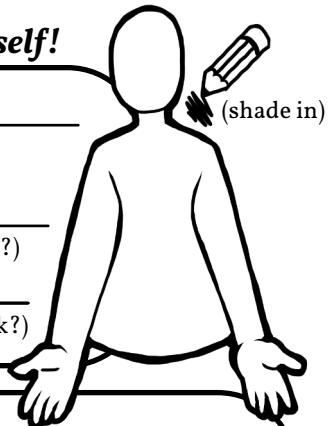
(shade in)

It's showing up in my
body as: _____

(A headache? Tight muscles?)

I need: _____

(A drink? A stretch? A break?)



Chris Martine

Professor of Plant Genetics, Bucknell University

Email: ctmo15@bucknell.edu

Twitter: [@MartineBotany](https://twitter.com/MartineBotany)

Diamanda Zizis

Undergraduate student, Bucknell University

Email: daz007@bucknell.edu

Twitter: [@DiamandaZizis](https://twitter.com/DiamandaZizis)

Focus: Creating botanical art as a tool for teaching in the classroom.

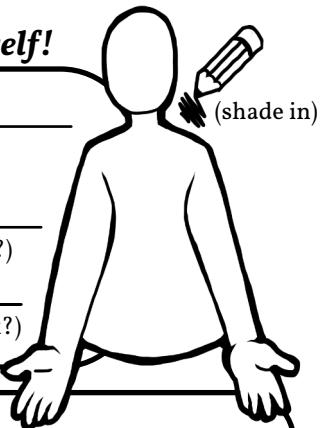
Panelists: **Liz Anna Kozik**

Check in with yourself!

I'm feeling: _____
(Excited? Sleepy? Antsy?)

It's showing up in my
body as: _____
(A headache? Tight muscles?)

I need: _____
(A drink? A stretch? A break?)



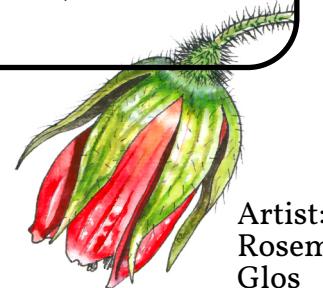
Liz Anna Kozik

Graduate student of Environment & Resources at
University of Wisconsin, Madison

Email: liz.anna.kozik@gmail.com

Portfolio and Website: <https://liz.kozik.net/>

Focus: Botanical art, comics, science communication, and
conservation.



Artist:
Rosemary
Glos

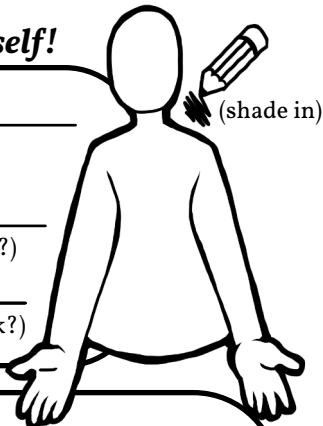
Panelists: **Maria Cortez** **& Isadora** **Frois**

Check in with yourself!

I'm feeling: _____
(Excited? Sleepy? Antsy?)

It's showing up in my
body as: _____
(A headache? Tight muscles?)

I need: _____
(A drink? A stretch? A break?)



Maria Beatriz Cortez de Souza

Graduate student of Biology at University of Florida

Email: mariacortez@ufl.edu

Isadora Frois

Graduate student of Graphic Design at Universidade da
Cidade de São Paulo

Email: isaobf@gmail.com

Portfolio: <https://www.behance.net/isabstract>

LinkedIn: <https://www.linkedin.com/in/isadora-frois-7bb671239>

Focus: Writing and illustrating a children's book on
Brazilian community botanical traditions.

Panelists:

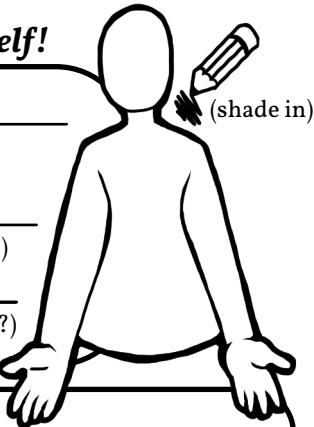
Tyler Thrasher

Check in with yourself!

I'm feeling: _____
(Excited? Sleepy? Antsy?)

It's showing up in my
body as: _____
(A headache? Tight muscles?)

I need: _____
(A drink? A stretch? A break?)



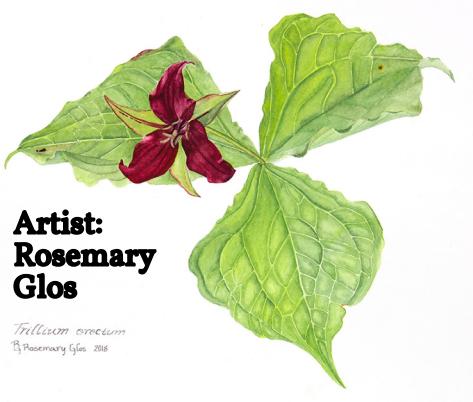
Tyler Thrasher

Artist, chemist, botanist

Email: tylerthrasherart@gmail.com

Website: <https://tylerthrasher.com/>

Focus: Multi-media art centered on plants and insects



Artist:
Rosemary
Glos

Trillium coccineum
© Rosemary Glos 2018

Roll for Botany

Create your own fictional plant!

(Adapted from the activity by Tyler Thrasher)

Steps:

- a. Roll the dice to determine the characteristics of your plant.
- b. Draw your plant based on these characteristics. (Don't stress about getting things "right" -- it's a fictional plant, so you can't be wrong!)
- c. Name your plant! Common name? Scientific name? Both? You choose!
- d. All done? Tack your creation to the "conservatory" at the front of the room and admire the ecosystem we have created.

Use a six-sided die to determine your plant's habitat:



1. Rainforest
2. Desert
3. Alpine
4. Subterranean
5. Aquatic
6. Coastal

Use a twenty-sided die to determine some of your plant's characteristics:



# rolled	Method of reproduction	Nutrient source	Growth pattern
1-4	pups/offshoots	epiphytic	single stem
5-8	spores	parasitic	cluster/colony
9-12	flowers -> seeds	carnivorous	distinct growth stages
13-16	rhizomes or tubers	deep tap roots	multi-stem
17-20	central network	shallow roots	dormancy periods

My creation:

Personal Reflections: Linking art and science



Guiding Questions:

You do not need to answer all of these! Circle or highlight the questions that stand out to you and reflect on them below.

General

- Why did you come to this workshop? What impulses or feelings are you following?
- What are some emotions and experiences that connect you to science?
- What about your life brings you wonder and curiosity?
- If you are talking to another scientist and describing your love for what you do, what would you share?
- If you are talking to a non-scientist and you were describing your love for what you do, what would you share?

Working through challenges

- What feels hard about science?
- When do you feel insufficient?
- How do you get through these feelings of insufficiency?
- What do hard moments teach you?
- What exercises or activities help you see the big picture when you are facing a roadblock?

Loving science!

- What inspires you?
- What is your path to science?
- Are there moments or images that make you feel good or light about science?
- Why do these things keep you going?

The creative process

- In this workshop, we have defined work in science and art both as creative processes. What does "creativity" mean to you personally, given that these processes are intimately connected to how you perceive the world around you?
- How do you generally approach making something that does not exist yet?
- Reflect on some examples in the presentations - were there any parts of other people's process that you relate to?
- Where in your life would an injection of creativity be most beneficial? What might this look like?

Space for reflection:



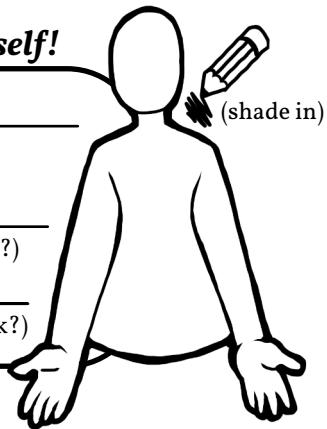
Artist:
Rosemary
Glos

Check in with yourself!

I'm feeling: _____
(Excited? Sleepy? Antsy?)

It's showing up in my
body as: _____
(A headache? Tight muscles?)

I need: _____
(A drink? A stretch? A break?)



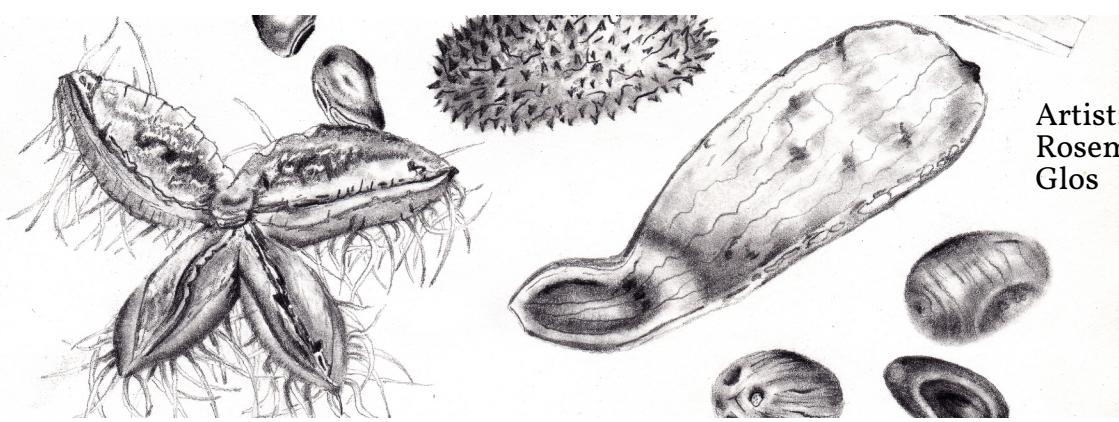
Space for reflection:



Artist:
Rosemary
Glos

Fall Samaras
Rosemary Glos '19

Space for reflection:



Artist:
Rosemary
Glos

Final reflections and next steps

1. What excites you from today's workshop?
2. What, if any, hesitations do you feel?
3. What would you like to do next?

Space for reflection:

Artist:
Rosemary
Glos



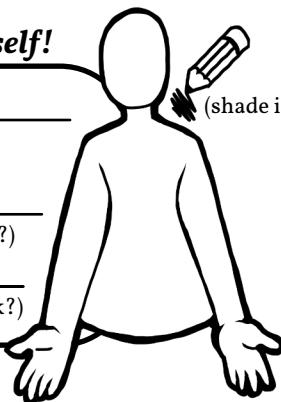
Space for reflection:

Check in with yourself!

I'm feeling: _____
(Excited? Sleepy? Antsy?)

It's showing up in my
body as: _____
(A headache? Tight muscles?)

I need: _____
(A drink? A stretch? A break?)



Artist:
Rosemary
Glos