Using generated trees to create leaf art

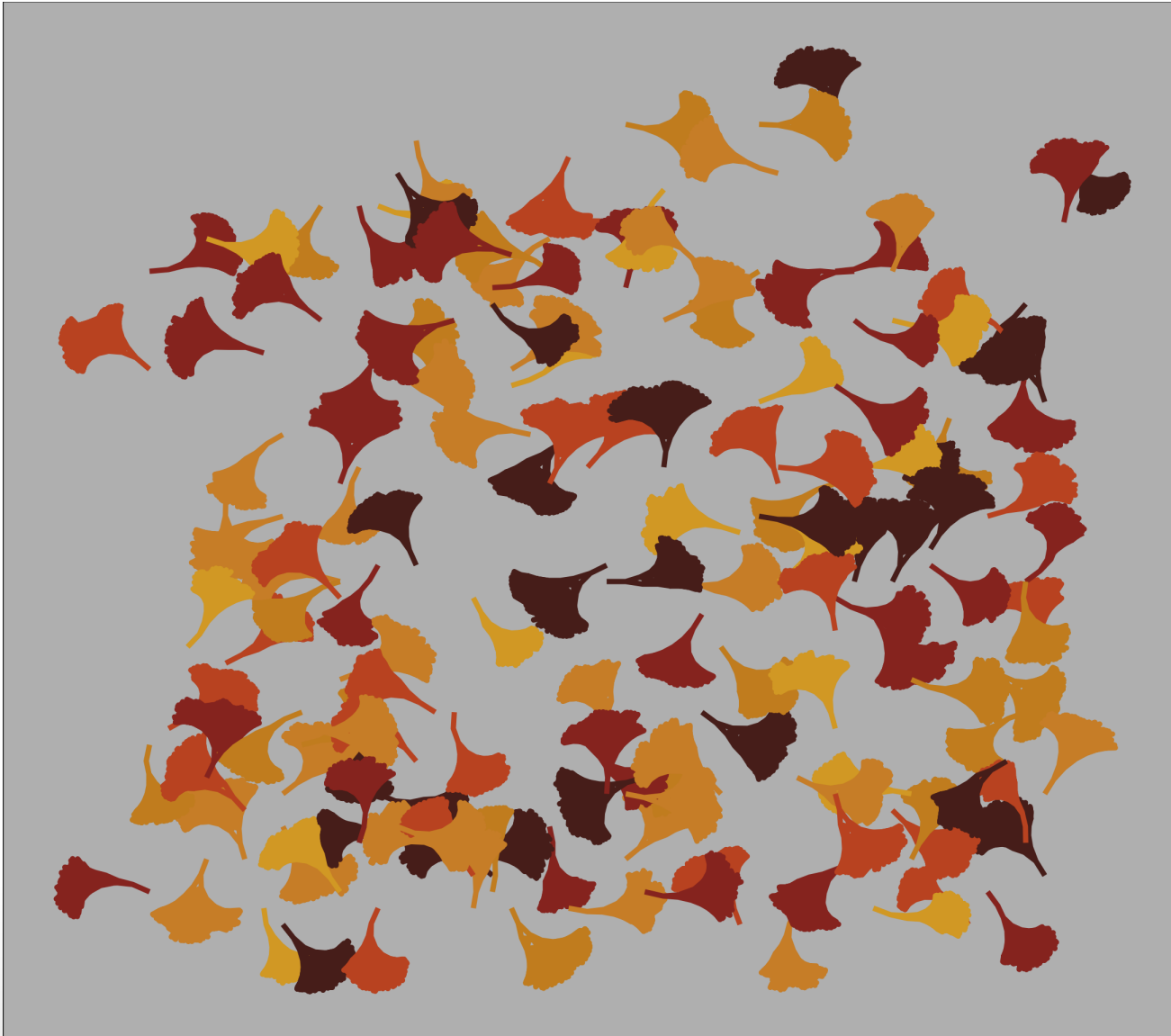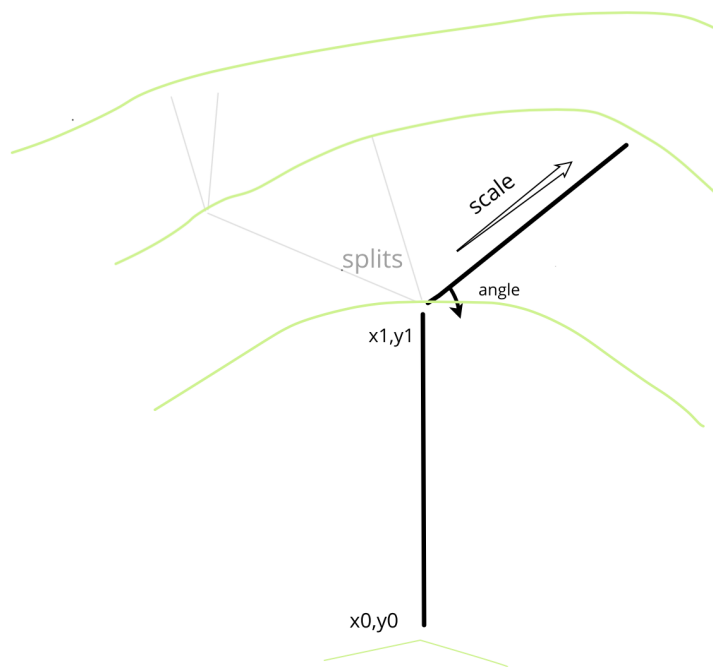https://github.com/ST541-Fall2020/empalmer-project-leafart

Emily Palmer

Motivation

- Create generative art
- Can I make forest landscapes?
- A bunch of little trees don't look like trees

```
get_ginkgo_params(nleaves = 100) %>%
  create_leaf_pile() %>%
  plot_leaves()
```

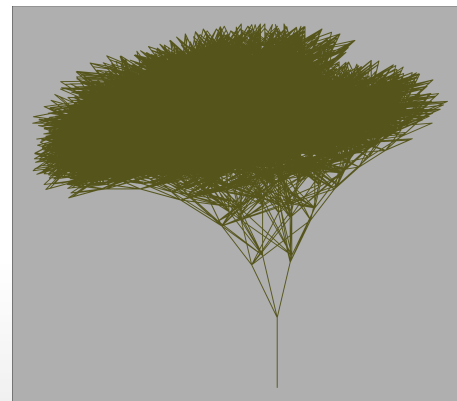# Creating the Trees

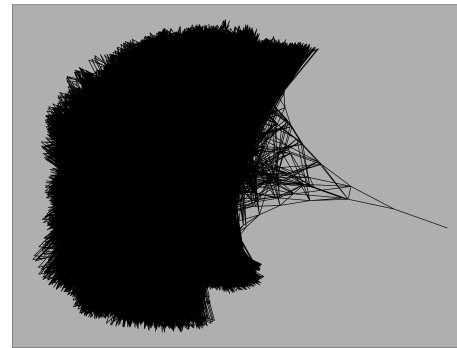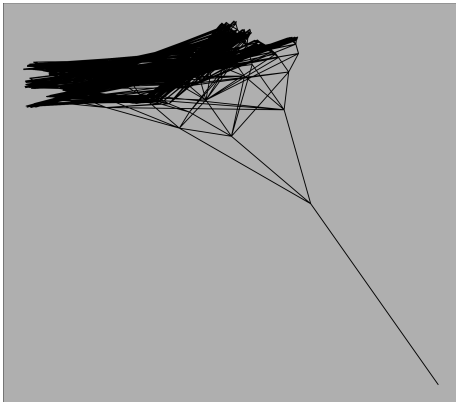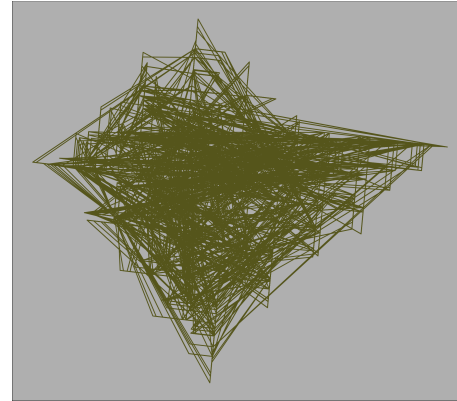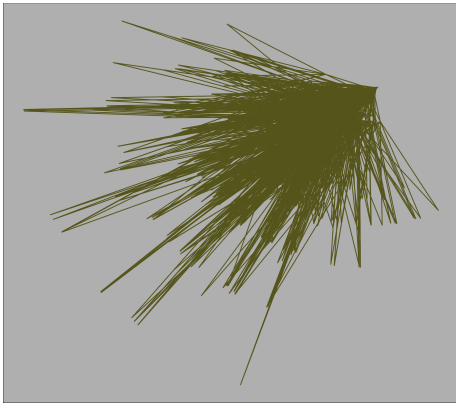The shape of the tree depends on parameters

- Number of layers
- Number of new branches at each layer
- Angle to branch off
- Scale for length of new branch

Trees are grown in layers, containing multiple branches. At the end of each branch, the next layer will split off into new branches

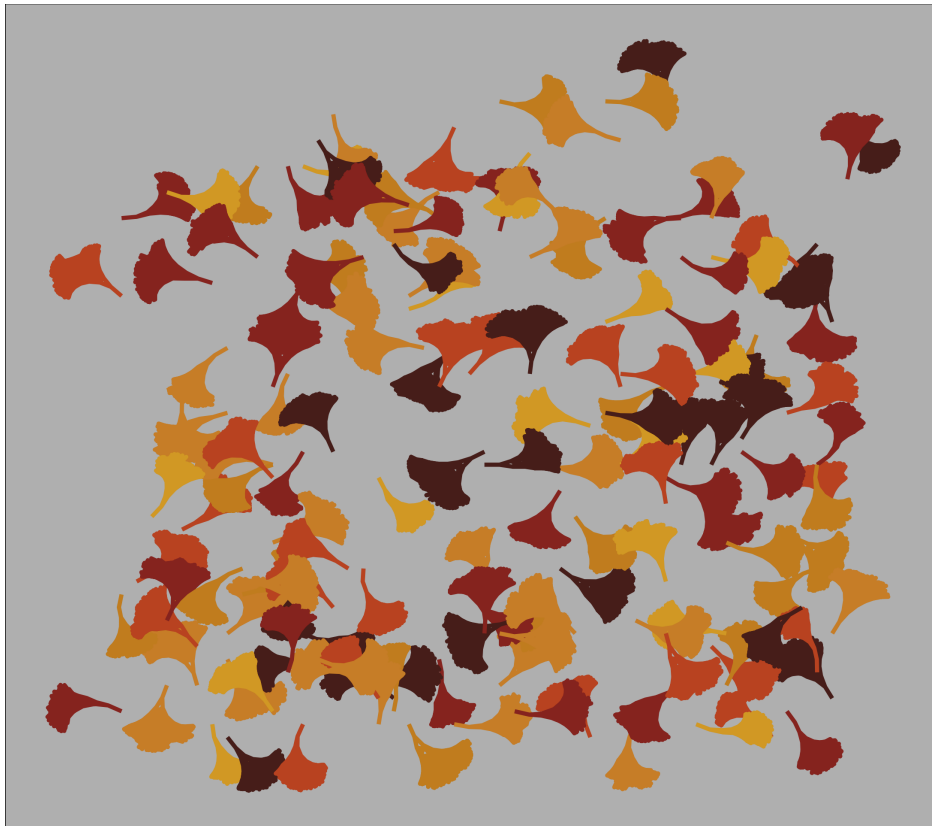Repeat many times and place and rotate randomly to create fallen leaves

The choice of parameter matters

Shiny app to explore

Using generated trees to create leaf art

Emily Palmer

https://github.com/ST541-Fall2020/empalmer-project-leafart
https://emilypalmer.shinyapps.io/empalmer-project-leafart/