

# SP19 cochineal lake from dyed silk thread

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# Cochineal Lake recipe: standard-reversed

- Following standardized recipes from "Natural Colorants for Dyeing and Lake Pigments: Practical Recipes and their Historical Sources" by Kirby et al.
  - Adapted by NJR

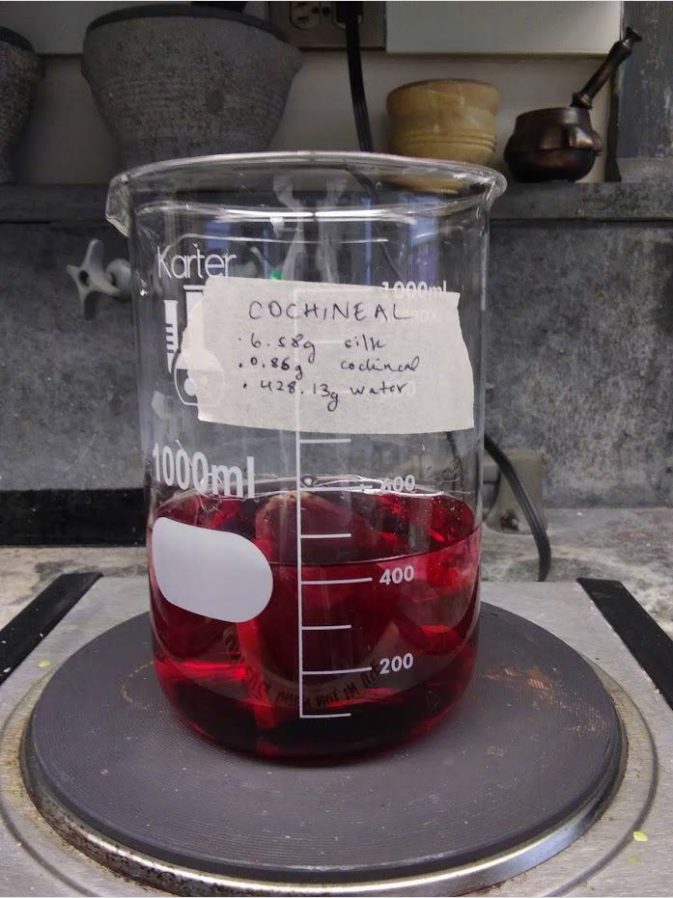
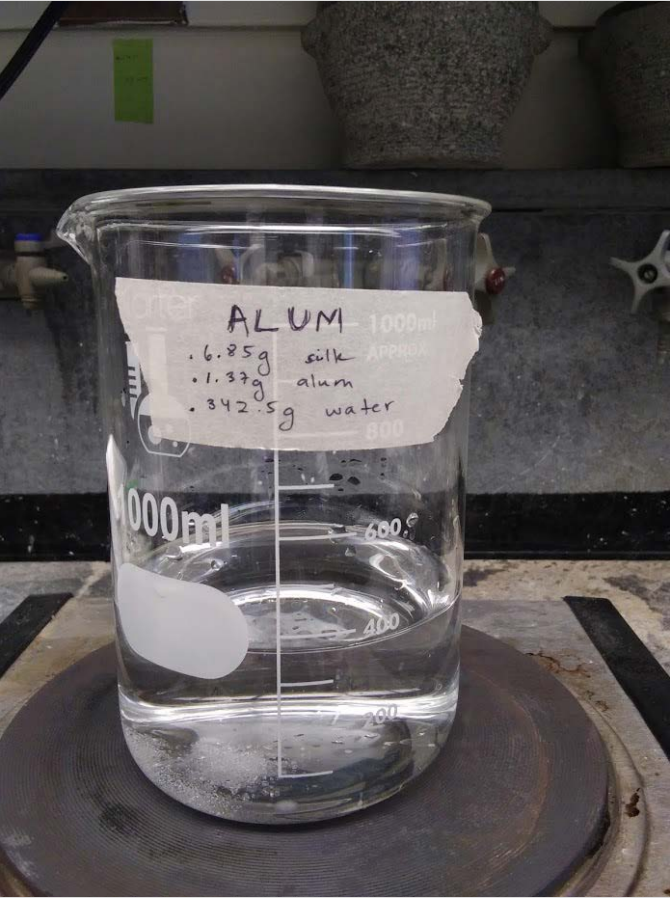
<b>Cochineal lake - standard reversed</b>			
<b>Material</b>	<b>Original (g)</b>	<b>Amount /1g cochineal (g)</b>	<b>Amount (g)</b>
cochineal	0.24	1	2
alum	10	41.66666667	83.33333333
water-alum	300	1250	2500
potash	4	16.66666667	33.33333333
water-potash	50	208.3333333	416.6666667



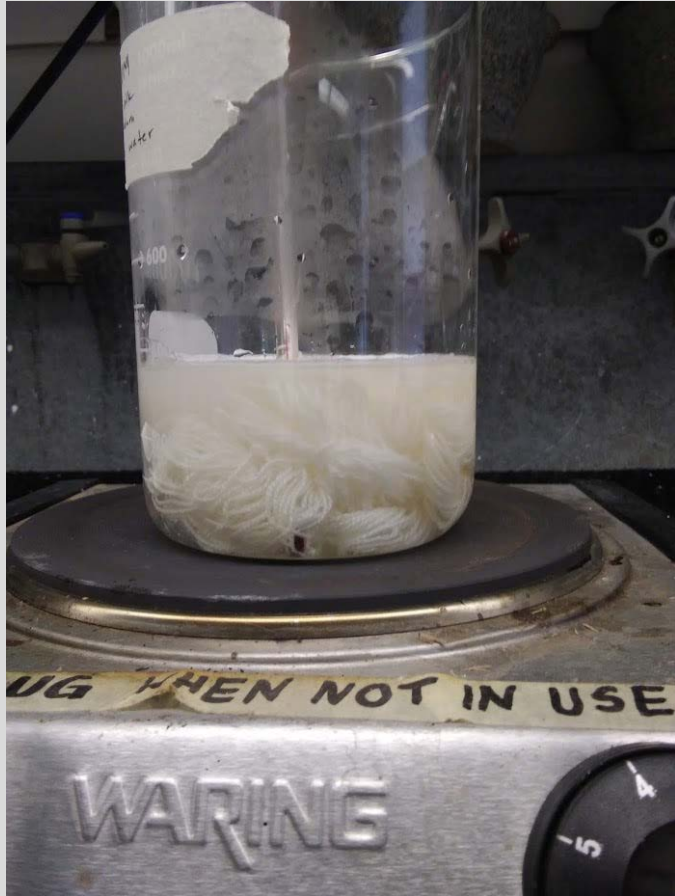


Preparing the dyed silk

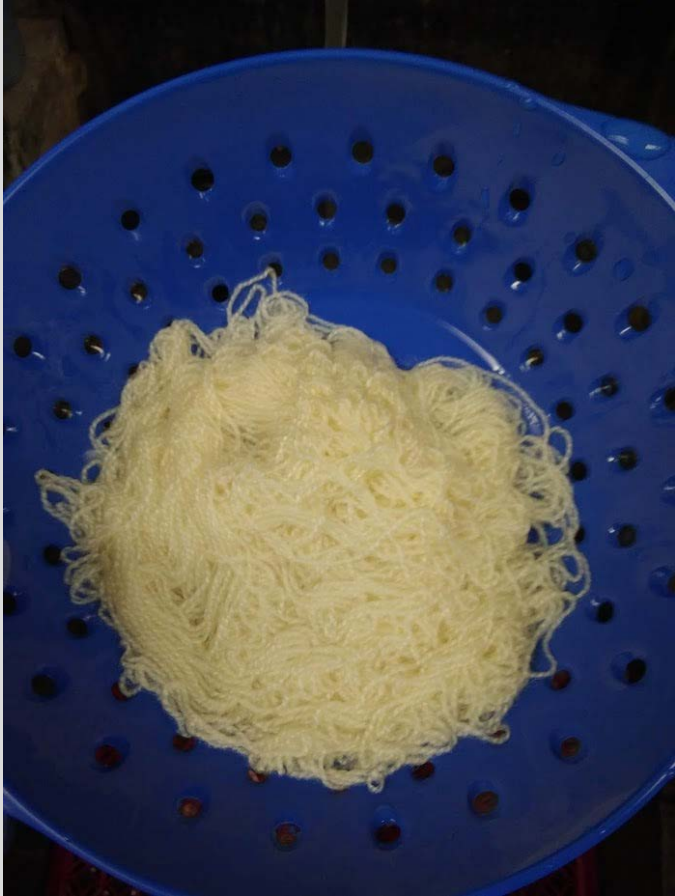
# Mordant and dye baths



# Silk thread in alum mordant bath

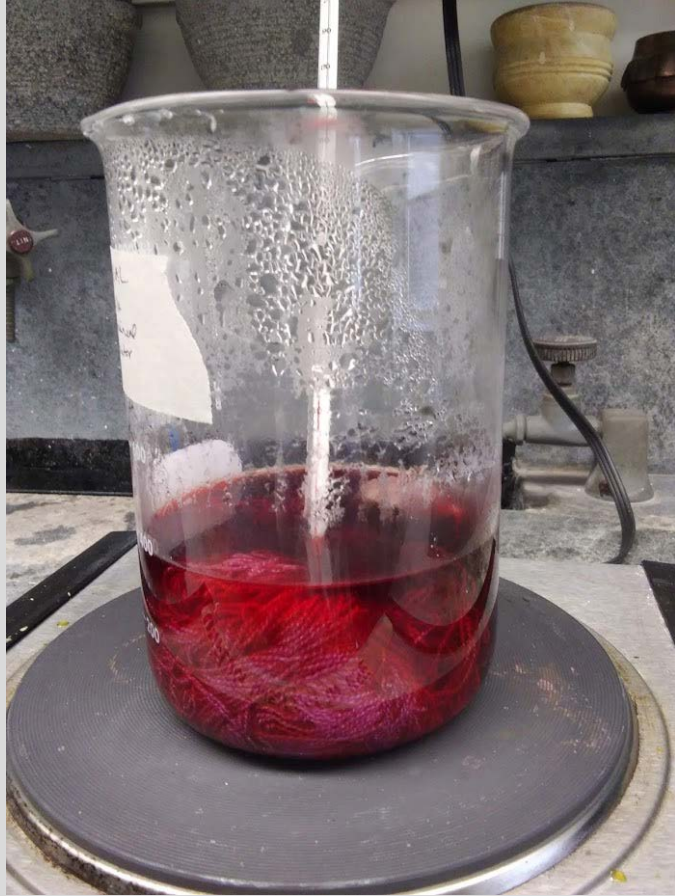


Washed after mordant bath





# Silk in cochineal bath



Silk washed and left to dry



# Silk dried



# Cutting up the silk to “fluff”



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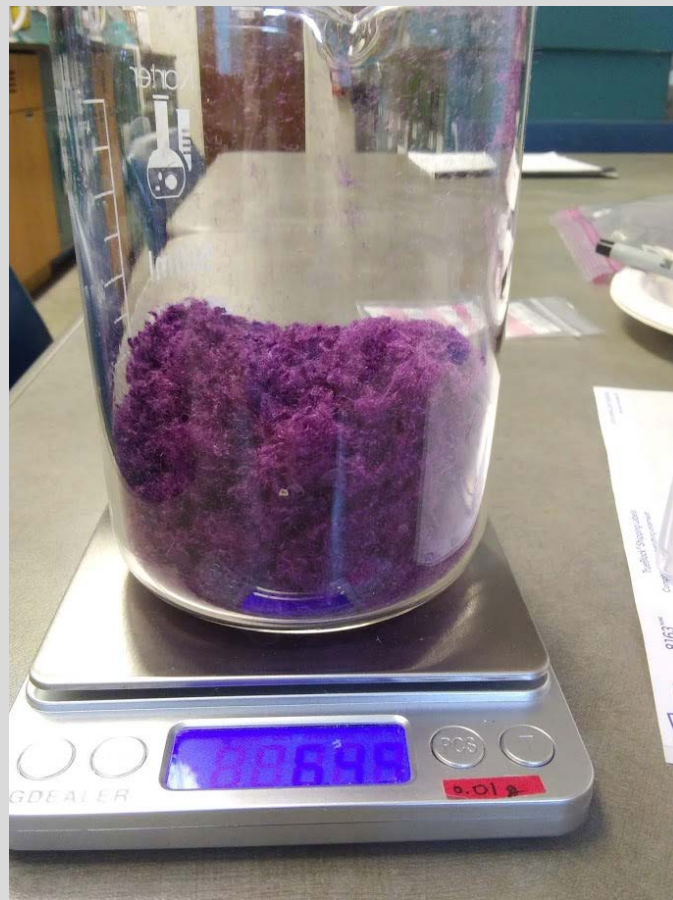
# Cutting up the silk to “fluff”



# Cutting up the silk to “fluff”

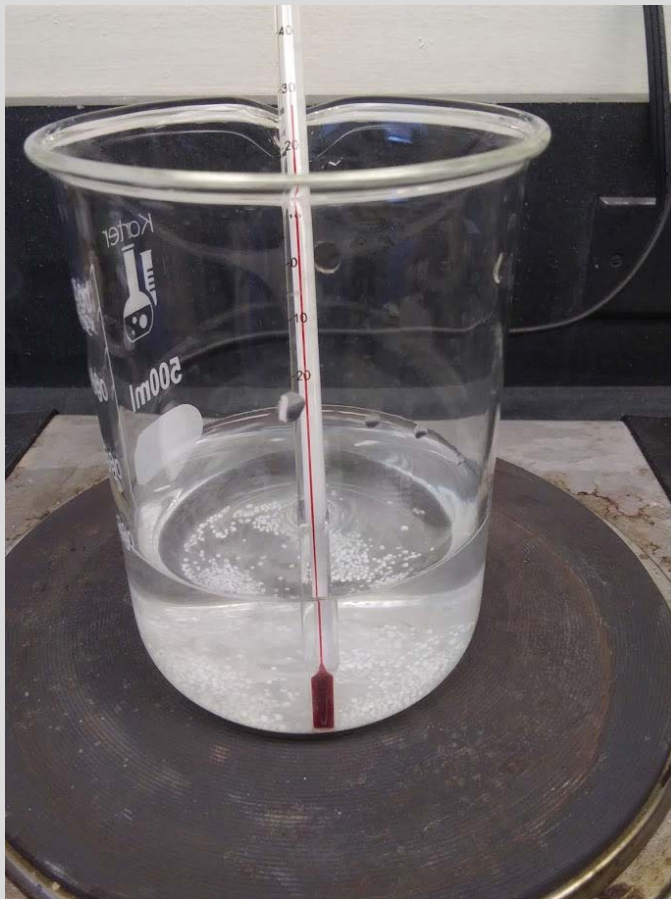
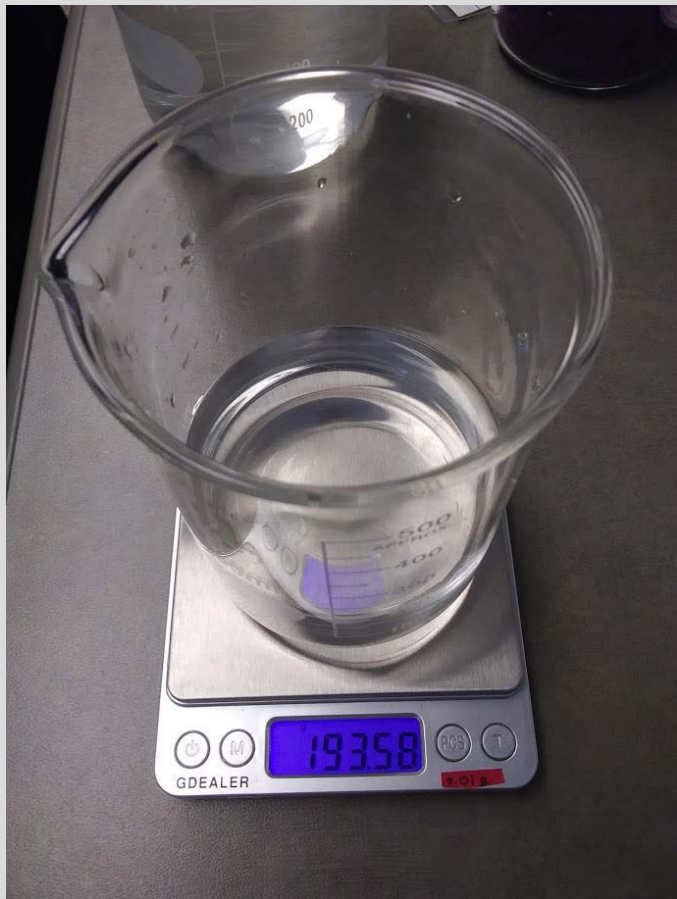


# “Fluff” is weighed

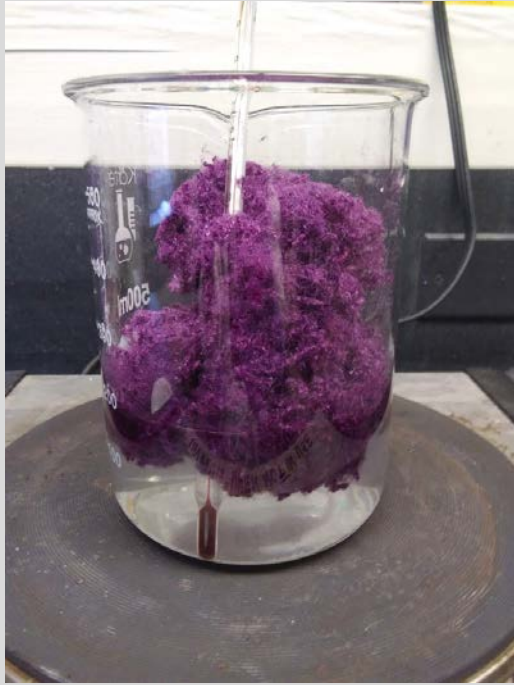




# Potash solution is prepared



Silk is added to potash solution



# Color extraction from silk with potash



Silk begins to lose color



Fibers are “felting” together



Silk continues to lose color as more time passes



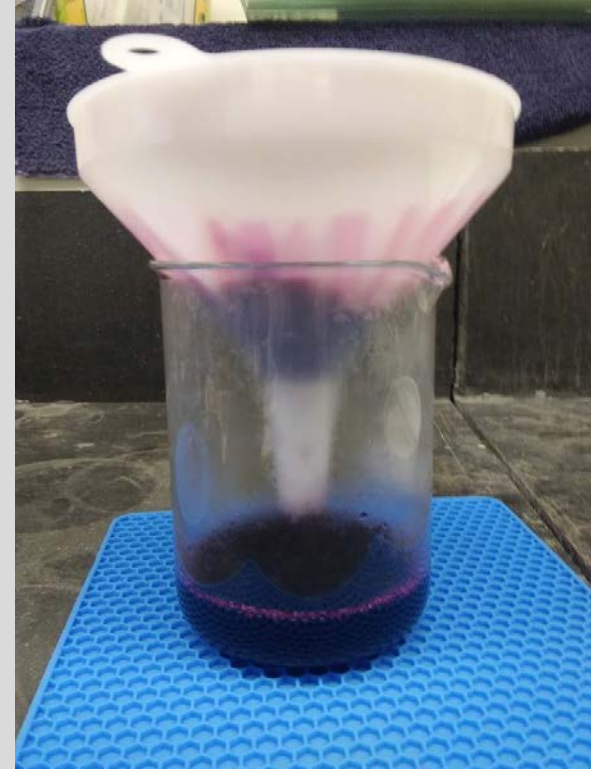
# Preparing to filter



When the silk has very little color when squeezed between fingers, ready to filter



# Filter using coffee filter and funnel





Squeeze fibers through filter to drain as much as possible



# Fibers after filtering and squeezing



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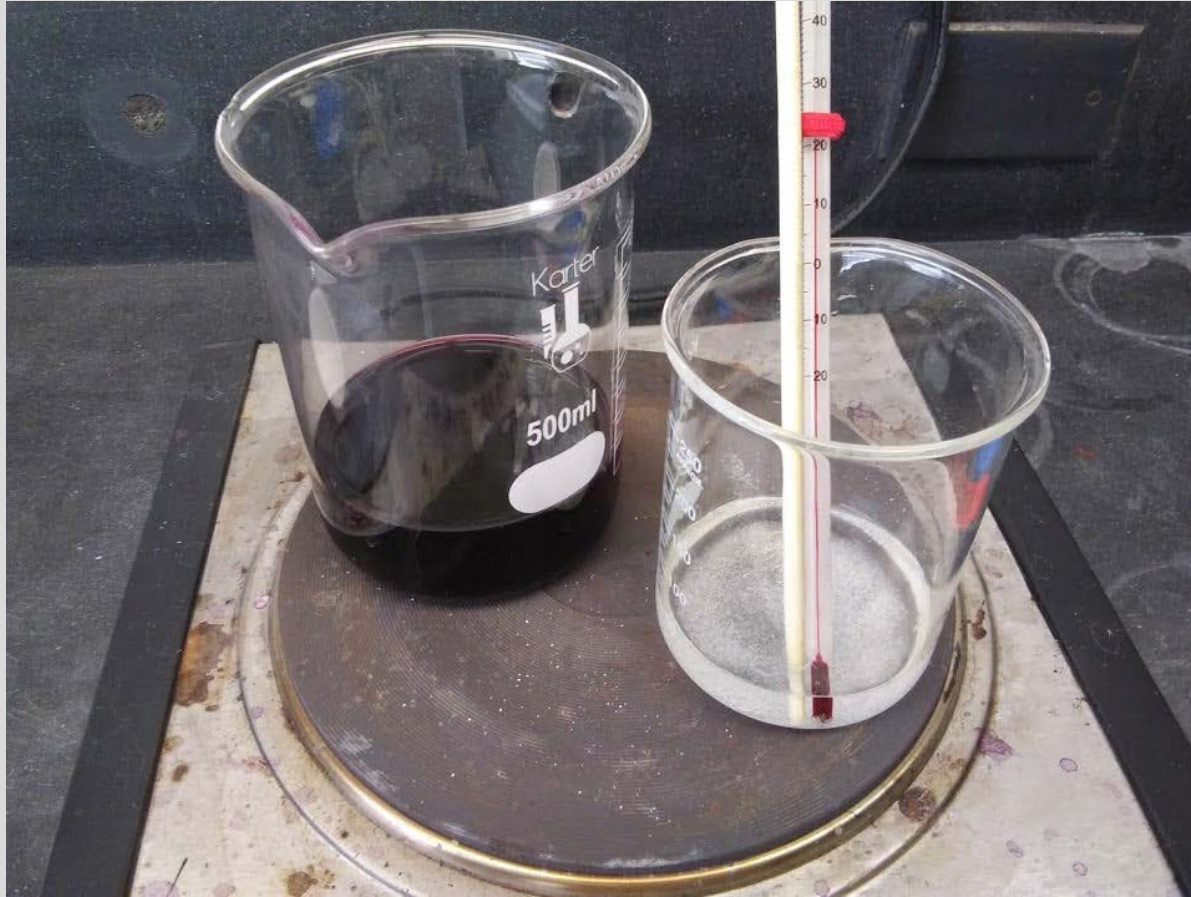


# Teasing out the fibers



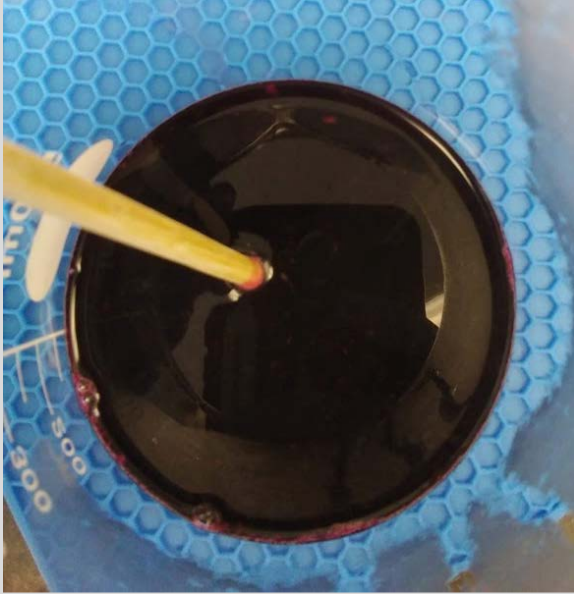
Preparing the lake pigment

# Extracted pigment filtrate from silk and alum solution



# Alum solution is gradually added to cochineal

alum sol added (ml)	pH	Notes
	12	cochineal solution brought back to heat ~90
	3	alum solution heated to ~50 (got almost to 60 which is not ideal)
4.5	12	Added using plastic dropper/pipet



Effervescence begins

# Effervescence

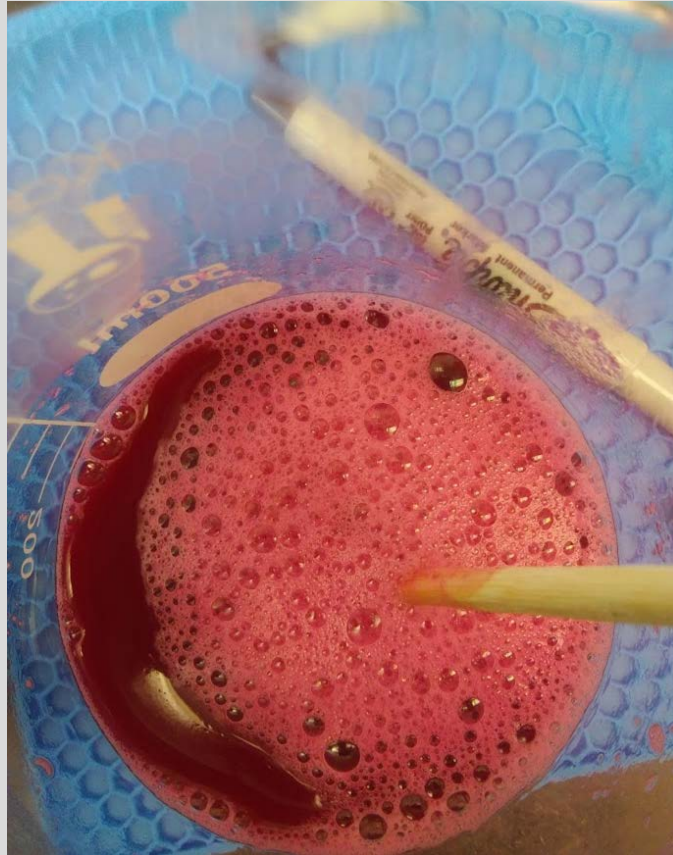
alum sol added (ml)	pH	Notes
8	10	





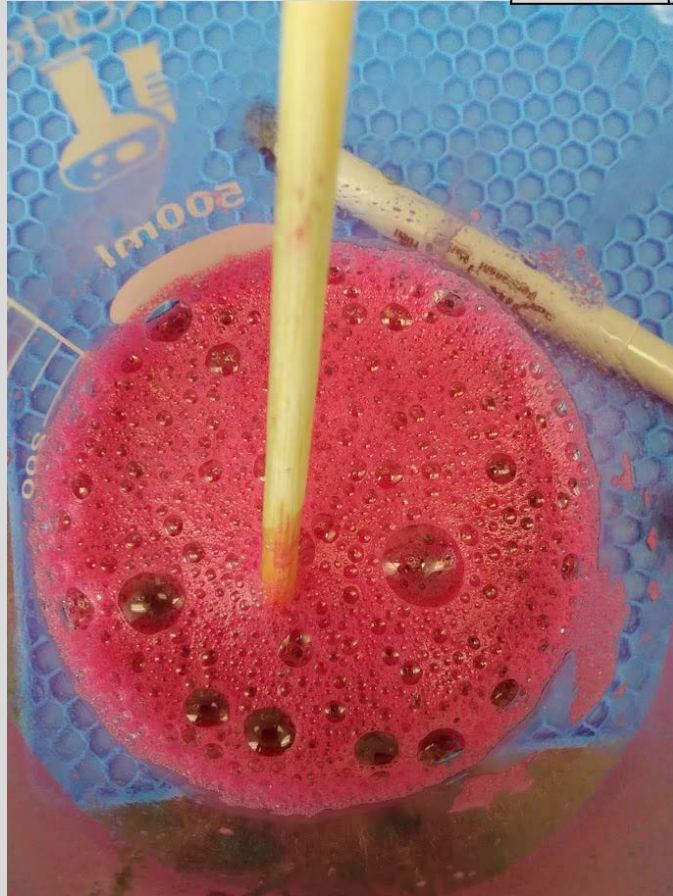
# Effervescence

alum sol added (ml)	pH	Notes
5	9	



# Effervescence

alum sol added (ml)	pH	Notes
4	8	

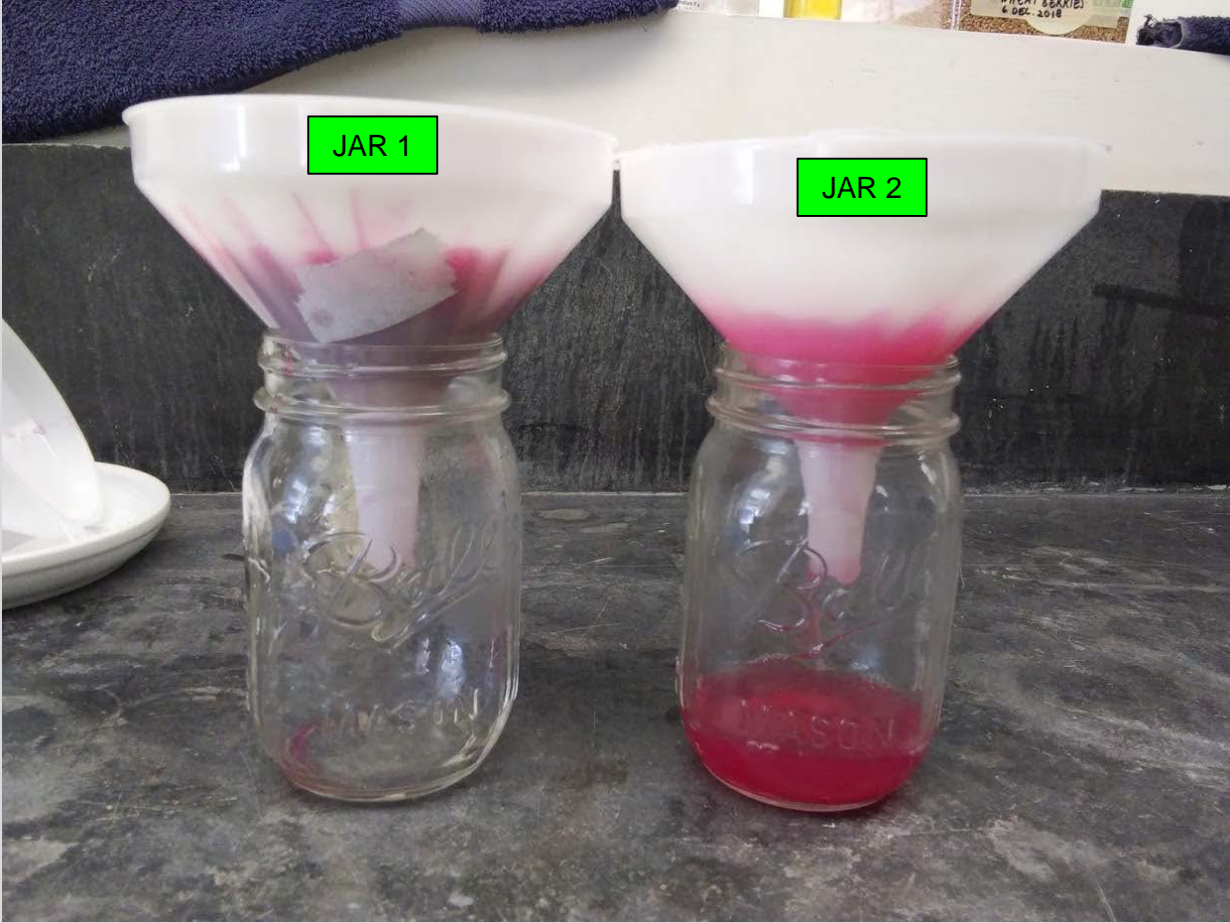


# Effervescence

alum sol added (ml)	pH	Notes
4	8-7	
2	7	reaction seems to have stopped. Addition of drops of alum sol do not result in further effervescence



# Filter using coffee filter and funnel



# Filter using coffee filter and funnel



# Filter using coffee filter and funnel



# Filter using coffee filter and funnel



# Filtrate is still pigmented - filter again

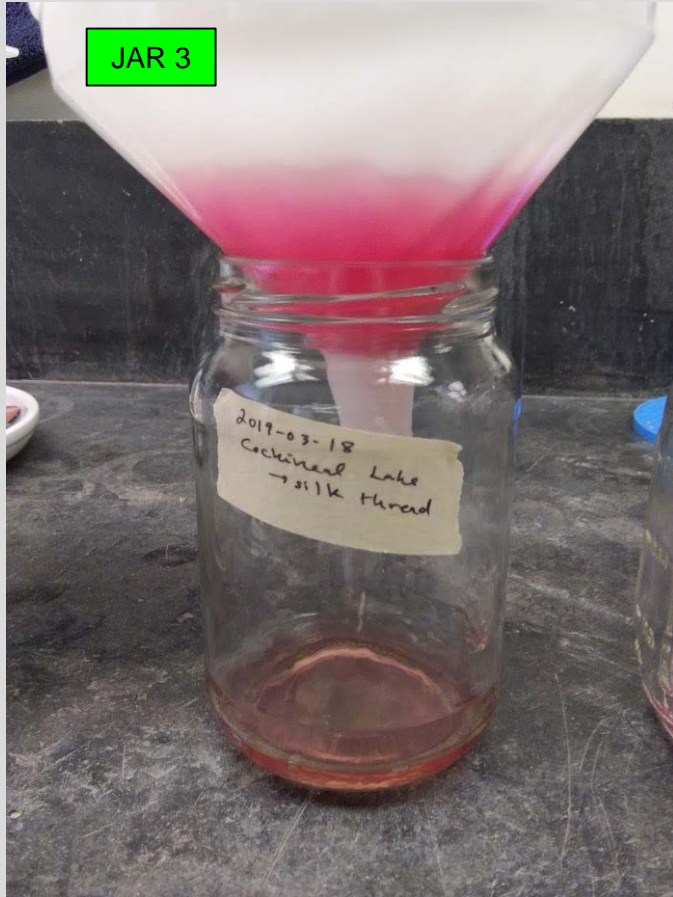




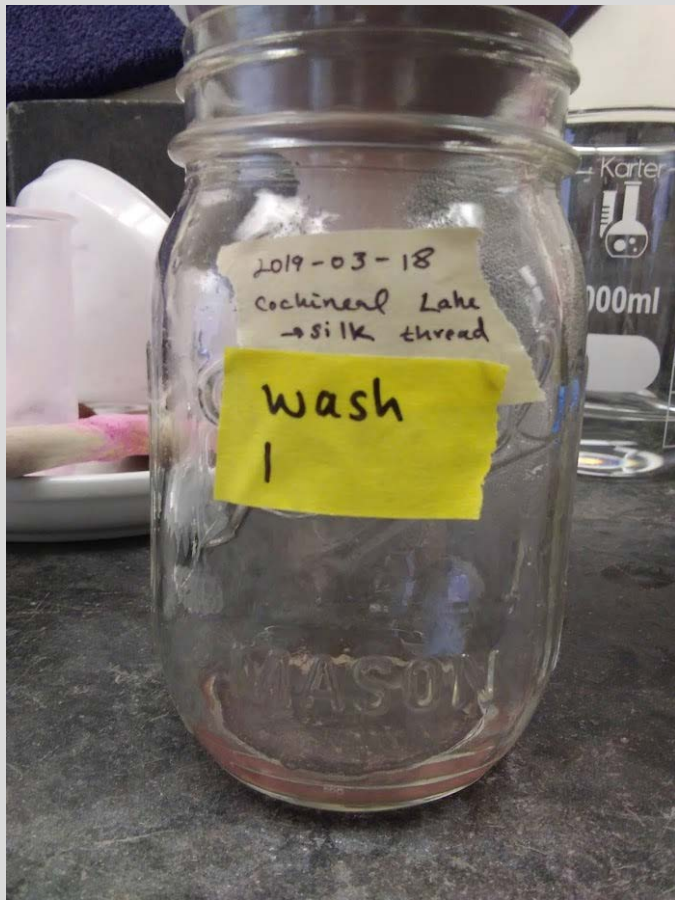
Filtrate is still pigmented - filter again



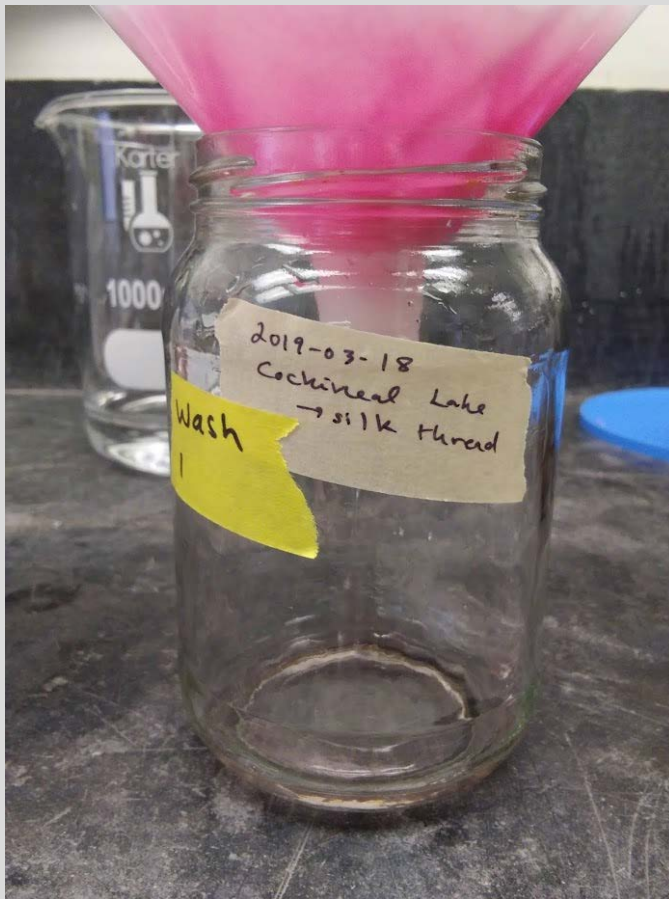
# Filtrate is still pigmented - filter again



# Wash the pigment with water



# Wash the pigment with water



Leave to dry



Leave to dry



Leave to dry



Removing pigment from filter (using medium-hard brush with fine bristles)

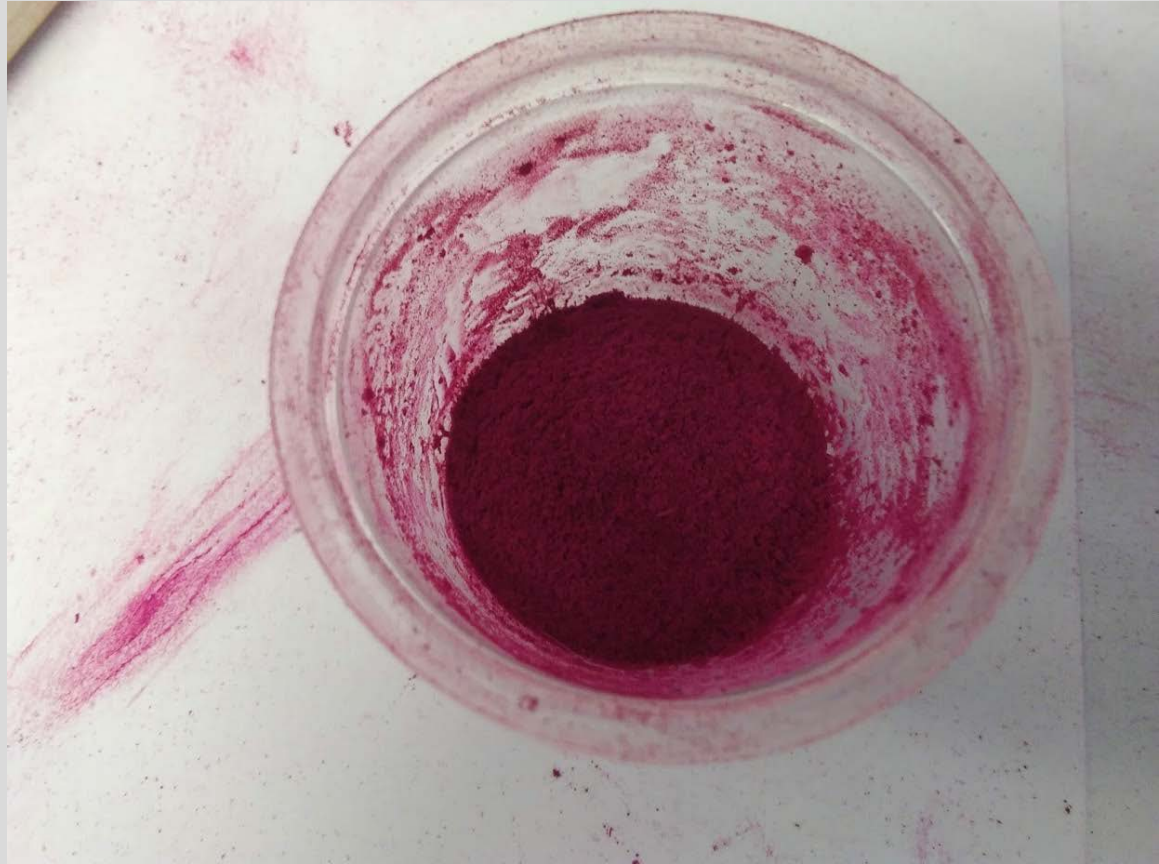




Removing pigment from filter (using medium-hard brush with fine bristles)



Grind in mortar and pestle



Grind in mortar and pestle



## **SP19 painting out lakes in binding media**

See also linked field note presentation