

Sherd Trace Analysis

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Fall 2018

The Samples



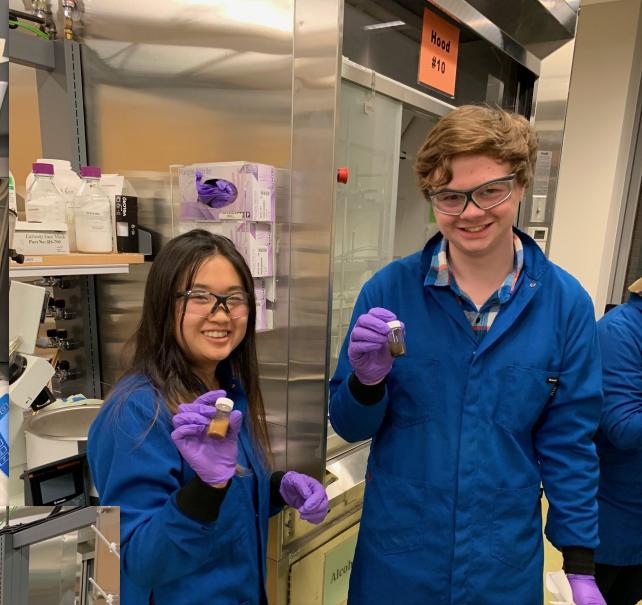
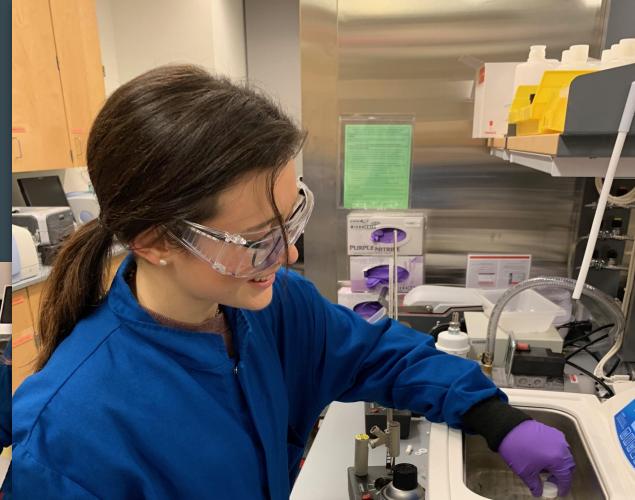
Goals

1. Learn about what people may have been eating in Ancient Mesopotamia
2. Identify particles in our pot sherds
3. Contextualize our findings

Hypothesis

Beer or Wine?

Methods



Results

	STD available	Origin	Area					
			MeOH		DCM		Dirt	Sherd 1
			Sherd 1	Sherd 2				
Compounds of interest								
Cinnamaldehyde		wine	NF	NF	NF	NF	NF	NF
Eugenol		wine	NF	NF	NF	NF	NF	NF
Ferulic acid		wine	NF	NF	NF	NF	NF	NF
Humulone		wine	NF	NF	NF	NF	NF	NF
Lactic acid	x	wine	5E+05	6E+05	NF	2E+05	2E+05	2E+05
Limonene		wine	NF	NF	NF	NF	NF	NF
Malic acid	x	wine	3E+03	1E+04	NF	3E+04	3E+04	3E+04
Malvidin		wine	NF	NF	NF	NF	NF	NF
Myrcene		wine	NF	NF	NF	NF	NF	NF
Octadecanoic acid		wine	3E+06	5E+07	1E+03	5E+06	8E+06	2E+07
Oxalic acid		wine	NF	NF	NF	NF	NF	NF
p-Coumaric acid		wine	NF	NF	NF	NF	NF	NF
Phtalic acid		wine	2E+03	1E+03	NF	7E+02	NF	NF
Resveratrol		wine	NF	NF	NF	NF	NF	NF
Safranal		wine	NF	NF	NF	NF	NF	NF
Syringic acid		wine	NF	NF	NF	NF	NF	NF
Tartaric acid	x	wine	NF	NF	NF	NF	NF	NF
Azelaic acid		Beer	8E+03	9E+03	NF	3E+03	1E+04	8E+03
Benzoic acid		Beer	NF	NF	NF	NF	NF	NF
Butanedioic acid		Beer	NF	NF	NF	NF	NF	NF
Glycerol	x	Beer	1E+07	6E+07	4E+03	4E+04	4E+04	4E+04
Hydrocinnamic acid		Beer	NF	NF	NF	NF	NF	NF
Myristoleic acid		Beer	NF	NF	NF	NF	NF	NF
Pimelic acid		Beer	NF	NF	NF	NF	NF	NF
Squalene		Beer	NF	NF	NF	NF	NF	NF
Suberic acid		Beer	NF	NF	NF	NF	NF	NF

Results

Compound	STD available	Origin	Area					
			MeOH			DCM		
			Sherd 1	Sherd 2	Dirt	Sherd 1	Sherd 2	Dirt
Other compounds found with difference from the Dirt samples								
Pinacol?			1E+05	5E+05	NF	1E+04	5E+03	NF
4-Hydroxybutanoic acid?			2E+04	3E+04	NF	1E+03	7E+02	5E+02
Dianhydrosorbitol			3E+05	9E+05	NF	NF	NF	NF
Lauric acid			2E+05	1E+05	NF	3E+04	1E+04	2E+04
Mannose or Glucose			6E+04	4E+05	NF	NF	3E+03	NF
other isomer manose or glucose	q		1E+05	4E+05	NF	NF	8E+03	NF

Conclusion



