

Establishing a Research Agenda for Computational Archival Science (CAS) through Interdisciplinary Collaborations between Archivists and Technologists

Rajesh Kumar **GNANASEKARAN** (*Doctoral*)

Alexis **HILL** (*MLIS*)

Phillip **NICHOLAS** (*MLIS*)

Lori **PERINE** (*Doctoral*)

with Richard **Marciano** (*Director of the AI Collaboratory*)

Wednesday, August 5, 2020
SAA Research Forum 2020

contact@ai-collaboratory.net



<http://ai-collaboratory.net>



[@aicollaboratory](https://twitter.com/aicollaboratory)



CT-LoS: Computational Treatments *to re-member* the Legacy of Slavery

“Reasserting Erased Memory”



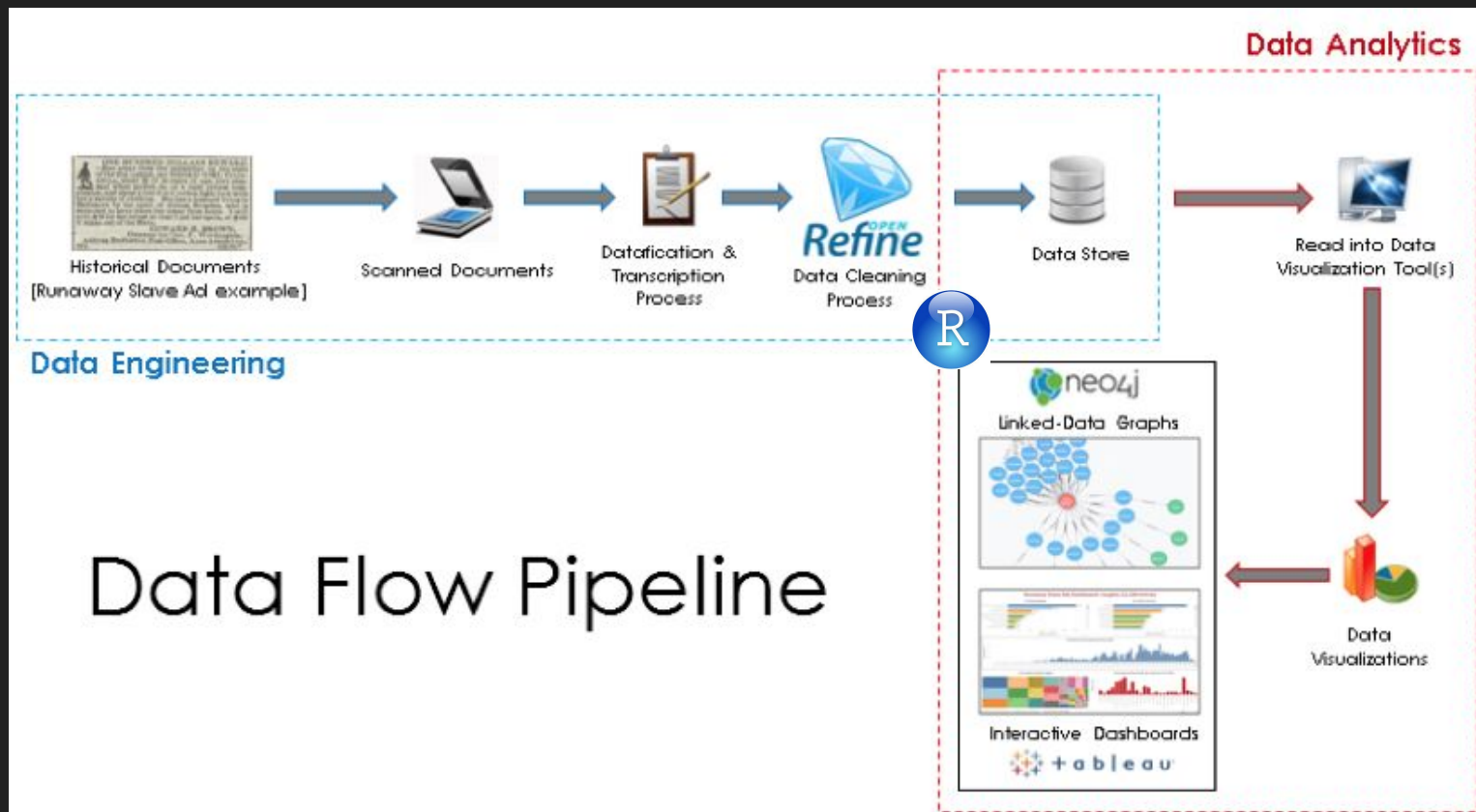
AHRC US-UK Student-Led Datathon, October 28-29, 2019

MSA Document Databases

A **manumission** is the legal document freeing an enslaved person. Manumissions can be found in land, probate, and chattel records. There is also a separate record series called Manumissions.

A **Certificate of Freedom** is a legal document that was issued to African Americans who were required to record proof of their freedom in the county court. The court would then issue them a Certificate of Freedom. If the person had been previously manumitted by an act of the slaveholder, the court clerk or register of wills would look up the manumitting document before issuing a certificate of freedom.

Enhanced Data Flow from Original Source Documents to Computational Exploration



Data Mining - Runaway Slave Ad

WAS COMMITTED to the Jail of Baltimore City and County on the 3d day of April, 1840, by Jeremiah Storm, Esq'r. a Justice of the peace in and for said city, a negro man, as a runaway, named Benjamin Howard, who says he belongs to William Howard, of Ocracock neck, North Carolina. He is of light complexion, about 25 or 6 years old, 5 feet 11 1/2 inches high. Had on when committed, thick cotton shirt, pea coat, domestic pantaloons and vest, an old white hat, and a pair of fine shoes. The owner, (if any) of the above described negro man, is requested to come forward, prove property, pay charges and take him away, otherwise he will be discharged according to law.

DAVID HERRING,
up 15
Warden B. C. & C. Jail.

OW_First	OW_Middle	OW_Last	OW_State	OW_County	OW_Locale
James		Porter	Maryland	Baltimore	Back River Neck
John		Thornton	Georgia	Oglethorpe	
Nicholas	M.	Wesley	Maryland	Baltimore	
William		Howard	North Carolina		Ocracock Neck
Mary	C.	Martin	Maryland	Talbot	Island Creek Neck
John		Allen	Maryland	Baltimore City	City Block
Maria	W.	Jackson	Maryland	Prince George's	
E.	C.	Raufings	Maryland	Baltimore	Lombard and Paca
James		Maxwell	Maryland	Harford	Michaelsville
Osborn		Cross	Maryland	Prince George's	Good Luck

Slave Owner Data

Fugitive Slave Data

FUG_First	FUG_Middle	FUG_Last	FUG_DOB	FUG_Gender	FUG_Age
Amanda		White		F	19
Ann		Butler	1816	F	25
Ann		Myers	1818	F	22
Benjamin		Howard	1815	M	25
Bill		Barriss		M	24
Bill		Hammond	1819	M	21
Bill		Harris		M	26
Bob		Manica		M	36
Charles		Dyson		M	23
Charles		Dyson		M	23

WAS COMMITTED to the Jail of Baltimore City and County on the 3d day of April, 1840, by Jeremiah Storm, Esq'r. a Justice of the peace in and for said city, a negro man, as a runaway, named Benjamin Howard, who says he belongs to William Howard, of Ocracock neck, North Carolina. He is of light complexion, about 25 or 6 years old, 5 feet 11 1/2 inches high. Had on when committed, thick cotton shirt, pea coat, domestic pantaloons and vest, an old white hat, and a pair of fine shoes. The owner, (if any) of the above described negro man, is requested to come forward, prove property, pay charges and take him away, otherwise he will be discharged according to law.

DAVID HERRING,
up 15
Warden B. C. & C. Jail.

*Fugitive DOB calculated by subtracting age from the date

Sample Data Issues (Incorrect Entry) - COF

Handwritten document snippet showing a record for Joseph Caldwell, born free in Maryland, raised in Talbot County. The text is signed by Mr. Keene.

On this 17 day of April 1839 before me personally appears Oakley Haddoway, maker oath on the Holy Evangel of Almighty God that Joseph Caldwell aged about 21 years of light complexion to wit 1/2 maker right has a scar on the thumb of the right hand was born free in Maryland raised in Talbot County

Incorrect County

C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
County	Owner	Owner	Witness	Date	Date_New_Raj	Freed_FirstName	Freed	Alias	Sex	PriorSt	PriorStatus_new	Age	Age_Final_Raj	Height	Height
BA	NULL	NULL	Oakley Haddoway	189390417	04/17/1839	Joseph	<input checked="" type="checkbox"/>		M	Born Free	Freeborn	21		21 6'1.5"	6

Sample Data Entry (Missing Information) - COF

Mulatto
Jeremiah W. Brown
 alias Negro Jerry -
 raised in Baltimore

Balto County

W. R. Kellett

on the [redacted] day of June 1840 before me Clerk of said court personally appears [redacted] & makes [redacted] in due form of Law that Jeremiah W. Brown (Mulatto) alias Negro Jerry, aged about 35 years of light complexion & long gray curly hair 5 feet [redacted] inches high has a mole on the forehead and one on the right hand is the identical man manumitted by Geo. Gillingham on the 15 day of June 1824 & recorded in Liber W. G. 32 folio 99 & one of the Records of Balto County.

and on the [redacted] day of June 1840 appears [redacted] & makes oath that Rachael Brown aged about [redacted] years of light complexion 5 feet [redacted] inches high has

G	H	I	J	K	L	M	N	O	P	Q	R	S
Date	Date_New_Ra	Freed_FirstName	Freed_LastName	Alias	Sex	PriorSt	PriorStatus_new	Age	Age_Final_Raj	Height	Height	He
184006	06/01/1840	Jeremiah W.	Brown	Jerry	M	Slave	Slave	50		50 5'		5

Sample Data Issue (Transcription - Height Feature) - COF

Abc certificates of freedom xl Height	Abc certificates of freedom xl Height New Feet	# certificates of freedom xl Height New Inch
5' 3"	5	3.0000
5' 3"	5	3.0000
5' 3"	5	3.0000
5' 7.75"	5	7.7500
4' 9.5"	4	9.5000
5' 1.5"	5	1.5000
5' 1.5"	5	1.5000
5' 6.5"	5	6.5000
5' 1"	5	1.0000
5' 6.25"	5	6.2500
5' 6"	5	6.0000
NULL	NULL	null
NULL	NULL	null

I	J	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
Freed_FirstName	Freed_	Age	Age_Final_Raj	Height	Height	Height	Compl	Complexion_new	Scars	Series	Series_new	Item	Folder	Docum	Page	Entry
Abraham	NULL	45	45	9' 7.75"	9	0.75	Black	Black	NULL	c931	C931	1	NULL	NULL	156	1

Data Cleaning - Prior Status Column - COF

- Narrowed the Prior Status column down from 25 text facets to 4.
 - Research was conducted to determine the prior status of those who were categorized as a "Descendant of a white female woman". Source: Wikipedia - History of slavery in Maryland

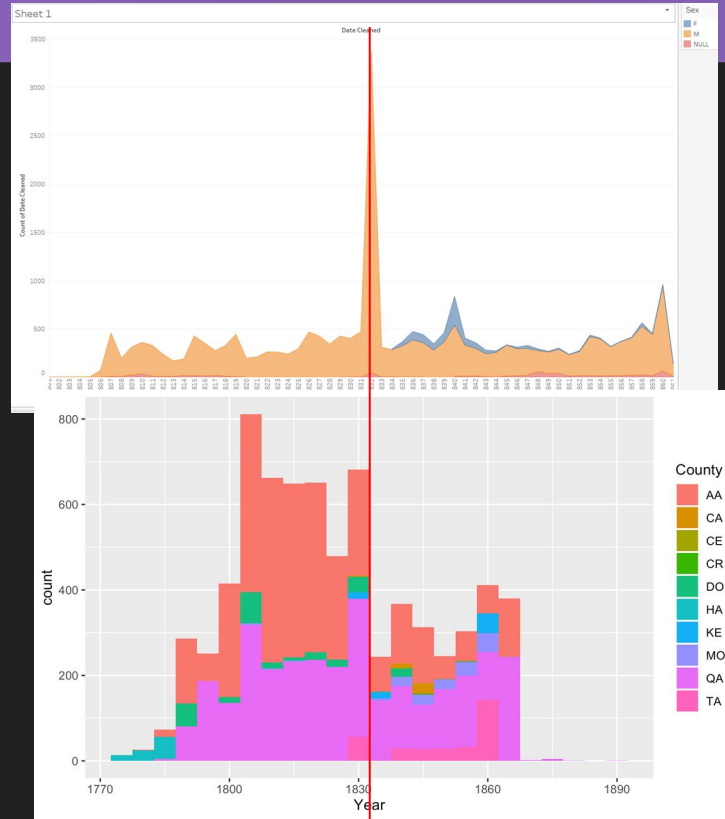
US city. Many planters in Maryland had freed their slaves in the years following the Revolutionary War.^[46] In addition, families of **free people of color** had been formed during colonial times from unions between free white women and men of African descent and various social classes, and their descendants were among the free. As children took their status from their mothers, these mixed-race children were born free.^[2]

PriorStatus		change
25 choices Sort by: name count		Cluster
?		2
Born Free	1913	
born free	4	
Born free	1	
BornFree	4	
Descendant of a white female woman	4	
Enslaved	1019	
Free	2	
Free	2	
Free born	6034	
free born	1667	

PriorStatus_new		change
4 choices Sort by: name count		Cluster
Free	4	
Freeborn	11655	
Slave	11070	
Unknown	326	
Facet by choice counts		

Data Visualization: Identifying Patterns

What happened around 1832?





Maryland Historical Context

1642- The first cargo ship with 13 Africans arrives in St. Mary's City. The legal status of indentured servants and slaves in Maryland remains in contention.

1664- Maryland legalizes slavery.

1775- The Revolutionary War begins.

1783- Maryland prohibits the importation of slaves.

1783- The *Maryland Gazette* published "Vox Africanorum", an editorial denouncing the inequality in the newly formed America, which promoted liberty and freedom while enslaving thousands.

1796- The Maryland General Assembly liberalizes the state's manumission laws regarding how and when a slave owner can free his/her slaves.

1831- The Maryland Colonizational Society forms to colonize Maryland blacks in Africa.

1832- In response to the Nat Turner Revolt, Maryland's legislature prohibits free blacks from entering the state.

1857- The U.S. Supreme Court hands down the Dred Scott decision, which denied African Americans equal rights as citizens.

1860- The Maryland General Assembly outlaws manumission by deed or will.

1861- The Civil War begins.

1862- Slavery is abolished in District of Columbia.

1863- Lincoln issues the Emancipation Proclamation, which frees all slaves in the territories currently in rebellion.

1864- On November 1, slavery is abolished in Maryland.

1865- Slavery is abolished in all of the states by the 13th Amendment.

Implications of Computational Archival Science

- Limitations of two dimensional technical tools
- Data elements lost or ignored
- Who captures the information
- Information can be understood in context of creation & continuing use
- Ability to compute the information for research & discovery
- Information retained & available for future use
- Combining interdisciplinary fields to understand data problems in context