

# Bridging the Gap Between Data and Lived Experience

What would W.E.B Du Bois say to an  
aspiring data journalist?

Allen Hillery

Anthony Starks

# Your Hosts



Allen Hillary



Anthony Starks

# Workshop Outline

1. Historical Context
2. Sociological Approach: The Philadelphia Negro
3. An overview of the Du Bois 1900 Visualization Collection
4. Approaching Contemporary Data

# Getting to know you

What city or neighborhood:

- Do you call home
- Inspires you
- Brings feeling of nostalgia

# Getting to know you

What time period or historical event has had a profound effect:

- On NYC?
- On the United States?
- Around the world?
- On YOU?

# 1

## Historical Context

The end of the 19th century zeitgeist – events leading to the 1900 Paris exhibition.



Atlanta University Debating Team, c. 1900



Women seated on steps of building at Atlanta University c. 1900



W.E.B. DuBois in Paris 1900



Exposition of the American Negro, Paris, 1900

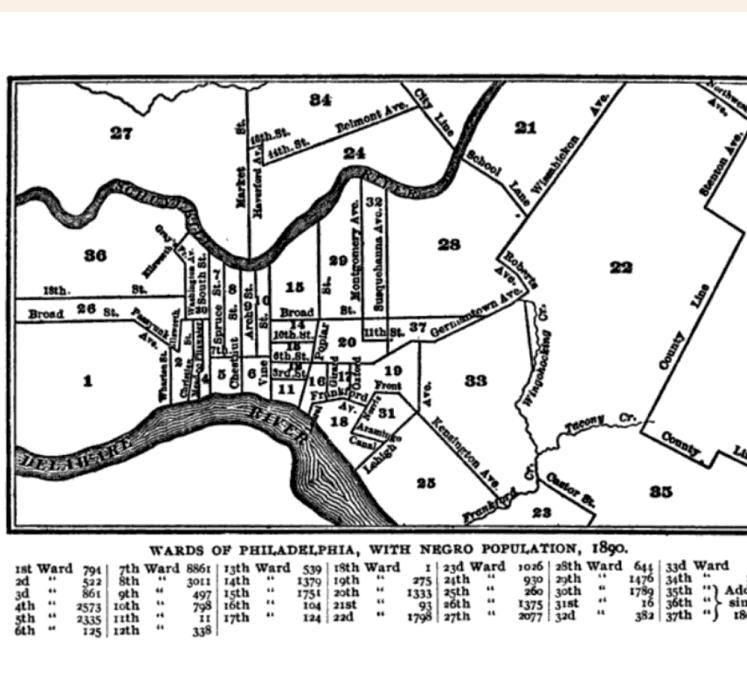
# Historical Context



# “Black America” Fair



# Plessy v. Ferguson



# Phila. Negro begins

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# A WHITE MAN'S DAY.

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## Eight to Ten Thousand People Out.

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### TILLMAN MAKES A GREAT SPEECH FOR DEMOCRACY

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# Lynchings Peak



# Paris Exposition

**1895**

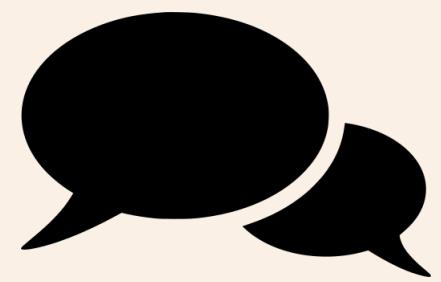
**1896**

1897

1898

1899

**1900**



# Is History Repeating Itself?

Looking at the historical events that led up to the 1900 Paris Exhibition, they look quite familiar to events happening today.

**How are the Wilmington Overthrow and Rise of Lynchings reminiscent of current events?**

2

# Sociological Approach

Exploring Du Bois' groundbreaking impact to sociology, and the precursor to the visual data stories.

# The Philadelphia Negro, 1897

| Proportion of Population. | 1848. | 1880. | 1890.* |
|---------------------------|-------|-------|--------|
| Under 5 years . . . . .   | 14.7  | 9.8   | 7.8    |
| Under 15 years . . . . .  | 33.6  | . . . | 22.5   |
| 15 to 50 years . . . . .  | 41.8  | . . . | 63.6†  |
| Over 50 years . . . . .   | 9.9   | . . . | 6.1‡   |

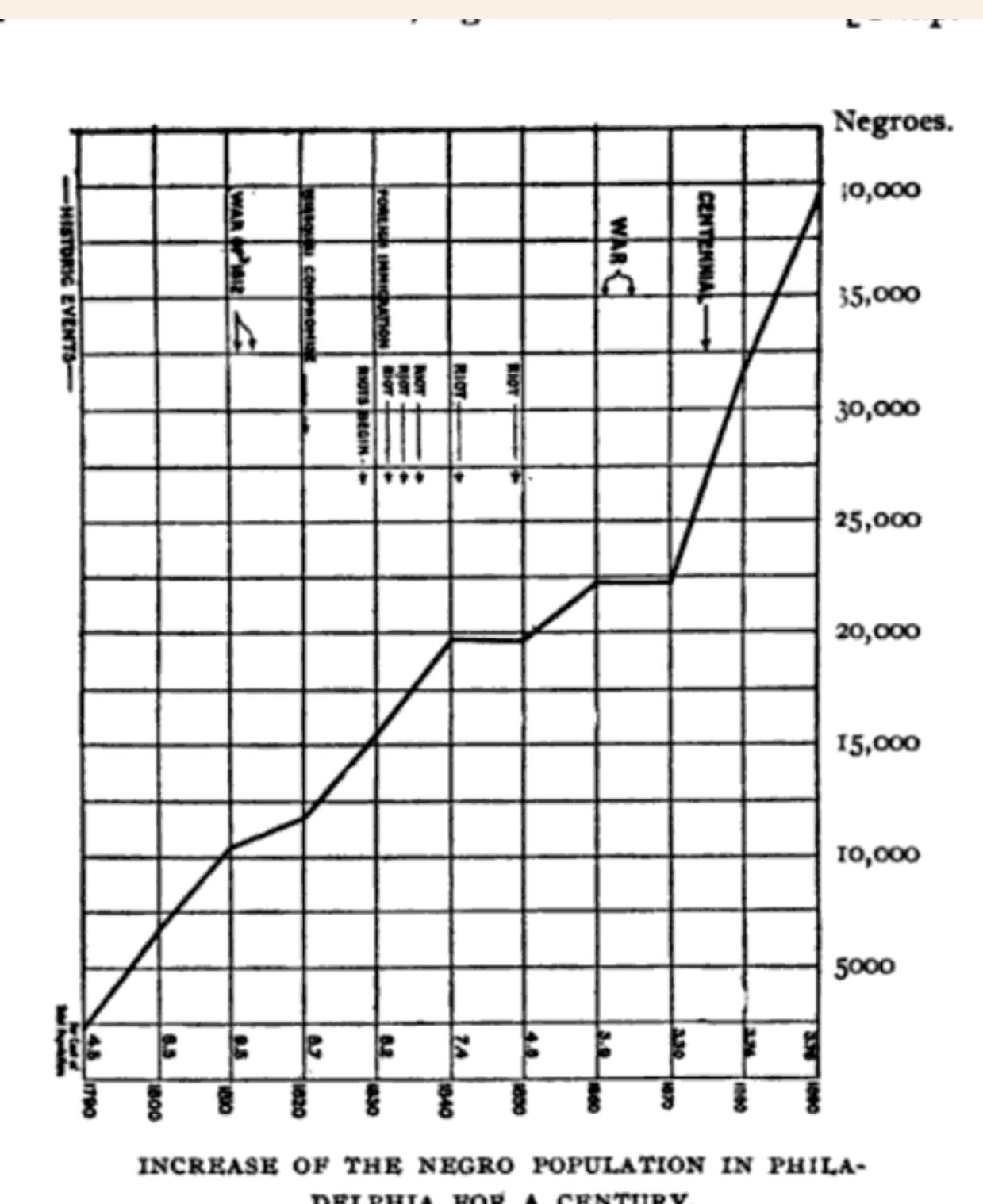
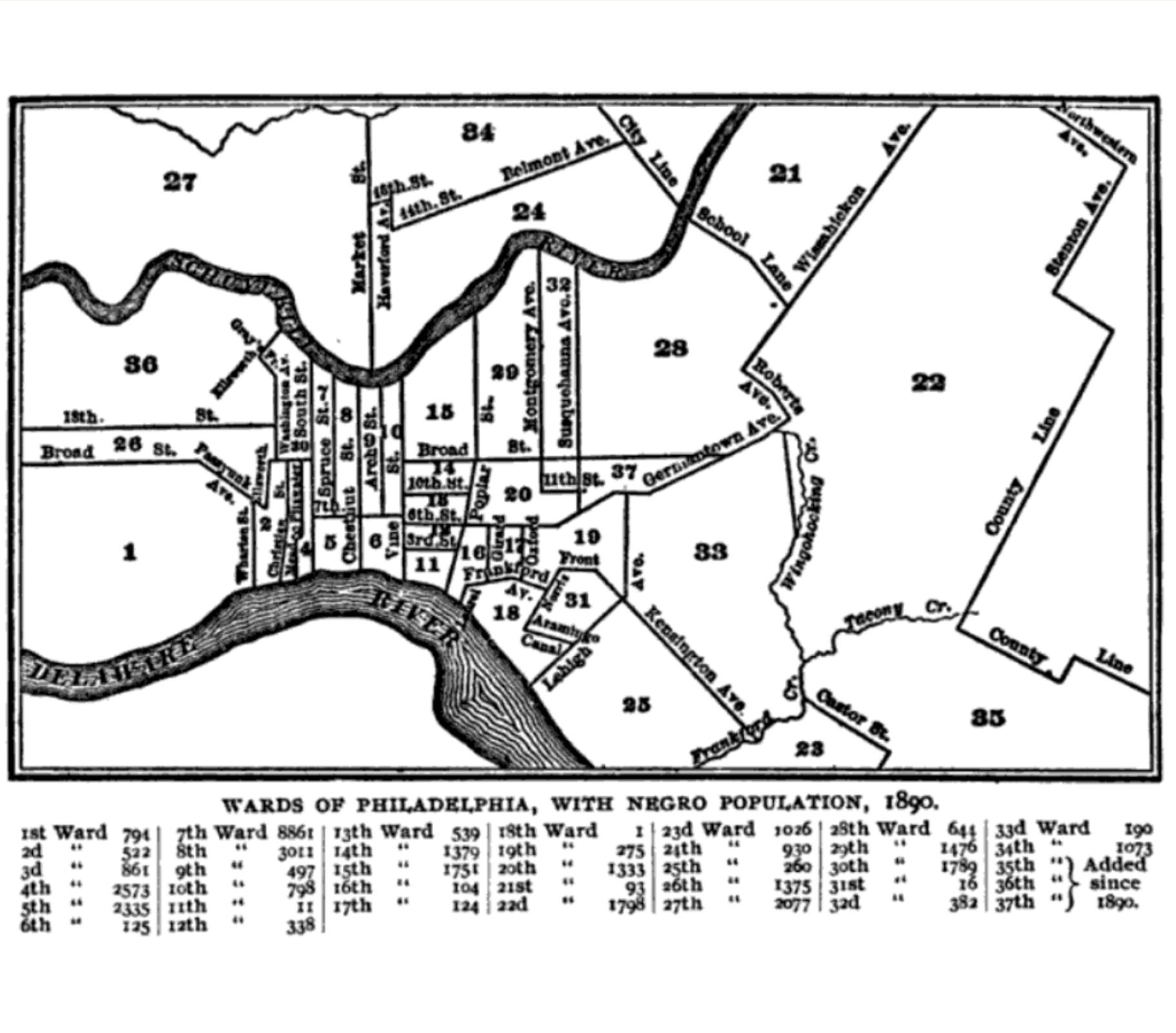
\* Including Chinese, Japanese and Indians. † 15 to 55. ‡ Over 55.

This table is too meagre to be conclusive, but it is probable that while the age structure of the Negro urban population in 1848 was about normal, it has greatly changed in recent years. Detailed statistics for 1890 make this plainer:

NEGROES\* OF PHILADELPHIA BY SEX AND AGE, 1890.

| Ages.                 | Males. | Per Cent. | Females. | Per Cent. | Total. |
|-----------------------|--------|-----------|----------|-----------|--------|
| Under 1 . . . . .     | 400    | 2.1       | 369      | 1.7       | 769    |
| 1 to 4 . . . . .      | 1,121  | 5.9       | 1,264    | 5.9       | 2,385  |
| 5 to 9 . . . . .      | 1,458  | 7.7       | 1,515    | 7.1       | 2,973  |
| 10 to 14 . . . . .    | 1,409  | 7.5       | 1,567    | 7.4       | 2,976  |
| 15 to 19 . . . . .    | 2,455  | 7.7       | 2,123    | 9.9       | 3,578  |
| 20 to 24 . . . . .    | 2,408  | 12.9      | 3,133    | 14.8      | 5,541  |
| 25 to 29 . . . . .    | 1,521  | 13.5      | 2,774    | 13.1      | 5,295  |
| 30 to 34 . . . . .    | 2,034  | 10.9      | 2,046    | 9.6       | 4,080  |
| 35 to 44 . . . . .    | 3,375  | 18.0      | 3,139    | 14.8      | 6,514  |
| 45 to 54 . . . . .    | 1,645  | 8.7       | 1,783    | 8.4       | 3,428  |
| 55 to 64 . . . . .    | 581    | 3.1       | 799      | 3.9       | 1,380  |
| 65 and over . . . . . | 376    | 2.0       | 726      | 3.4       | 1,102  |
| Unknown . . . . .     | 177    | ..        | 176      | ..        | 353    |
| Total . . . . .       | 18,960 | 100.0     | 21,414   | 100.0     | 40,374 |

\* Includes 1003 Chinese, Japanese and Indians.



"This inquiry extended over a period of fifteen months, and sought to ascertain something of the geographical distribution of this race, their organizations, and above all their relation to their million white fellow-citizens"

# The Philadelphia Negro: Survey Methods

1. Family survey - (marital status, income, employment)
2. Individual survey - (same as above)
3. Home survey - (home ownership vs renting)
4. Street survey - (collecting local data)
5. Survey for institutions and organizations
6. Survey for home servants



# What would Du Bois say?

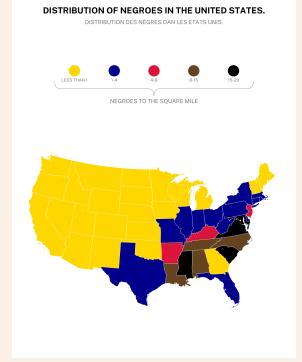
Du Bois emerged from the Philadelphia Negro as the first number-crunching, surveying, interviewing, participant-observing and field-working sociologist in America.

What do you think Du Bois would have to say to an aspiring data journalist? Would he have embraced social media?

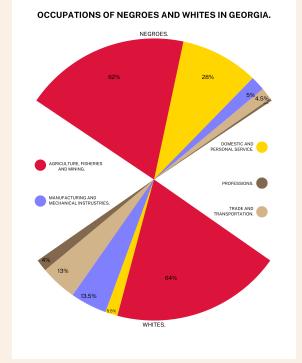
# 3

## The Du Bois Visualizations

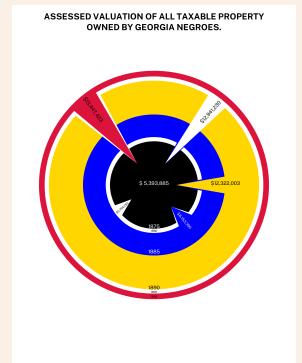
Discussion of the visualization taxonomy, and a definition of the Du Bois style, its design elements and decisions.



# We are here

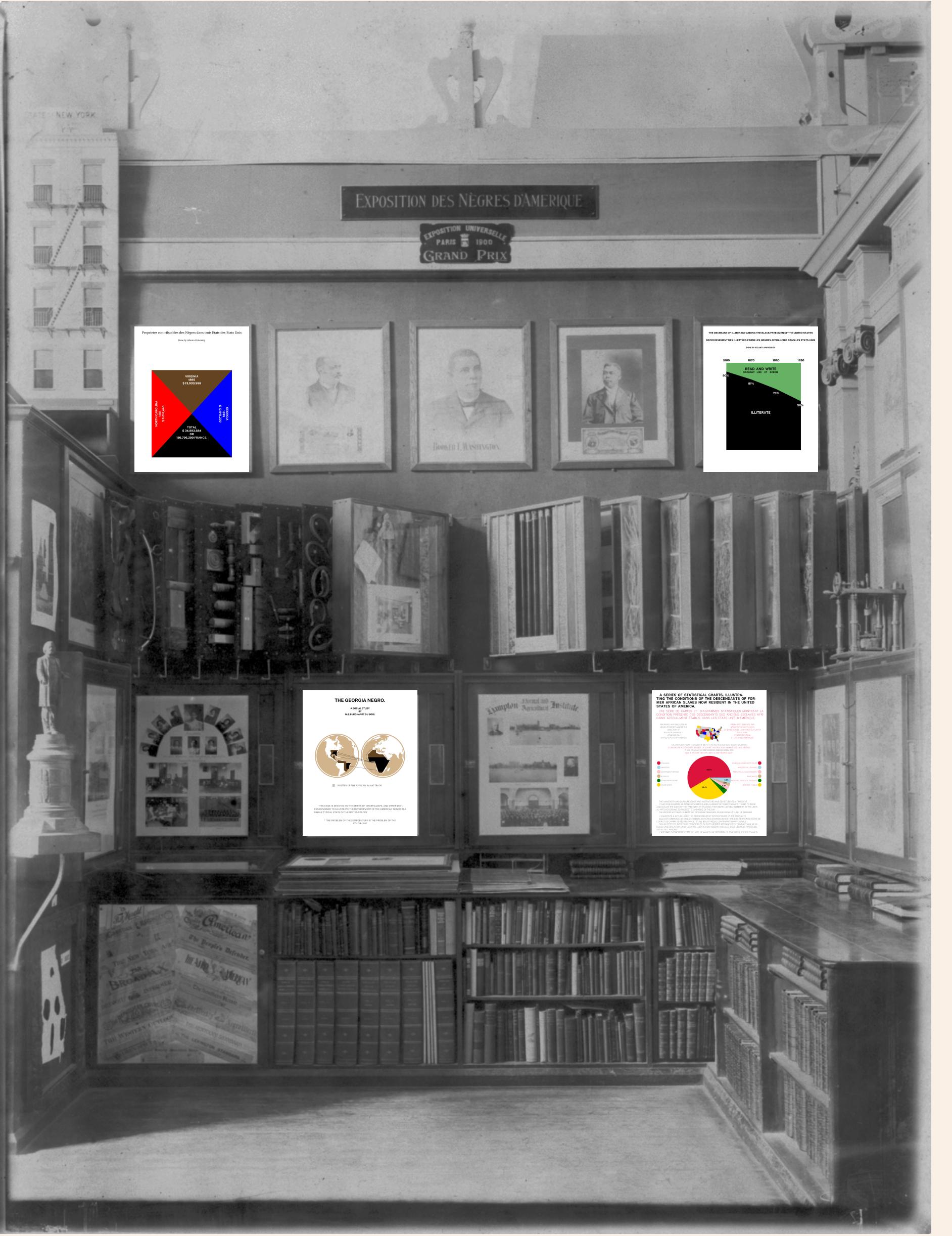


# This is who we are



# This is how far we have come





22"

A SERIES OF STATISTICAL CHARTS, ILLUSTRATING THE CONDITION OF THE DESCENDANTS OF FORMER AFRICAN SLAVES NOW RESIDENT IN THE UNITED STATES OF AMERICA.

UNE SÉRIE DE CARTES ET DIAGRAMMES STATISTIQUES MONTRANT LA CONDITION PRÉSENTE DES DESCENDANTS DES ANCIENS ESQLAVES AFRIQUEAINS ACTUELLEMENT ÉTABLIS DANS LES ETATS UNIS D'AMÉRIQUE.

PREPARED AND EXECUTED BY  
NEGRO STUDENTS UNDER THE  
DIRECTION OF  
ATLANTA UNIVERSITY,  
ATLANTA, GA.  
UNITED STATES OF AMERICA.



CENTRE OF NEGRO POPULATION,  
ATLANTA UNIVERSITY.

PRÉPARÉES ET EXÉCUTÉES PAR  
DES ÉTUDIANTS NÈGRES SOUS  
LA DIRECTION DE L'UNIVERSITÉ  
D'ATLANTA,  
ETAT DE GÉORGIE,  
ETATS UNIS D'AMÉRIQUE.

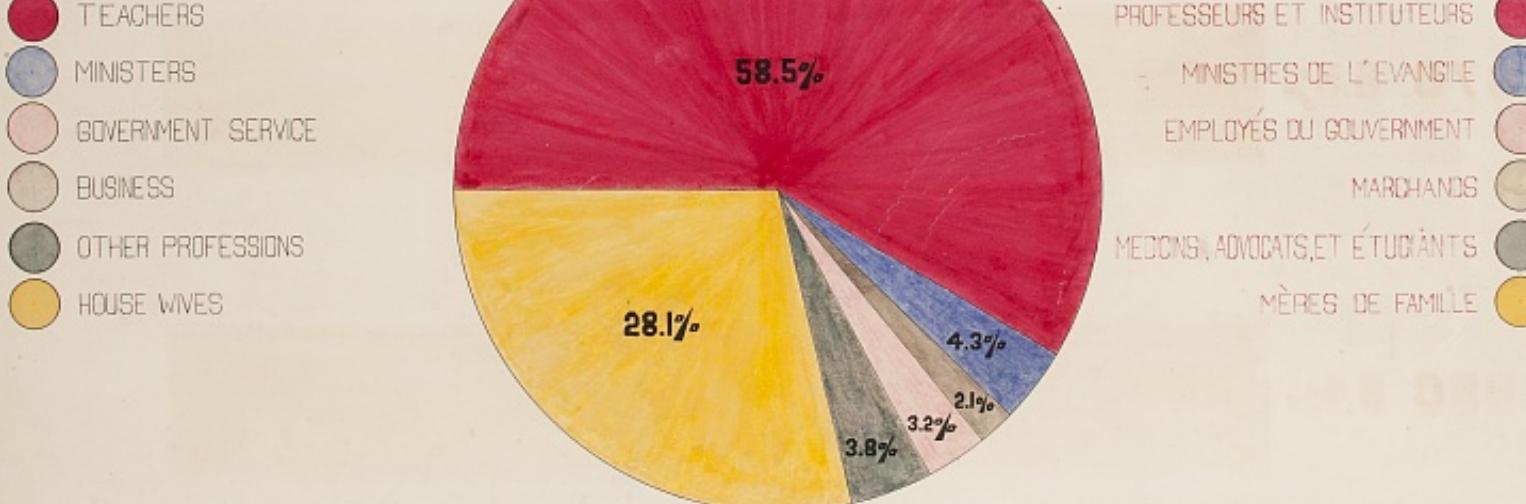
THE UNIVERSITY WAS FOUNDED IN 1867. IT HAS INSTRUCTED 6000 NEGRO STUDENTS.

L'UNIVERSITÉ A ÉTÉ FONDÉE EN 1867. ELLE A DONNÉ L'INSTRUCTION À 6000 ÉTUDIANTS NÈGRES.

IT HAS GRADUATED 330 NEGROES AMONG WHOM ARE:

ELLE A DÉLIVRÉ DES DIPLÔMES À 330 NÈGRES DONT :

28"



THE UNIVERSITY HAS 20 PROFESSORS AND INSTRUCTORS AND 250 STUDENTS AT PRESENT.

IT HAS FIVE BUILDINGS, 60 ACRES OF CAMPUS, AND A LIBRARY OF 11,000 VOLUMES. IT AIMS TO RAISE AND CIVILIZE THE SONS OF THE FREEDMEN BY TRAINING THEIR MORE CAPABLE MEMBERS IN THE LIBERAL ARTS ACCORDING TO THE BEST STANDARDS OF THE DAY.

THE PROPER ACCOMPLISHMENT OF THIS WORK DEMANDS AN ENDOWMENT FUND OF \$500,000.

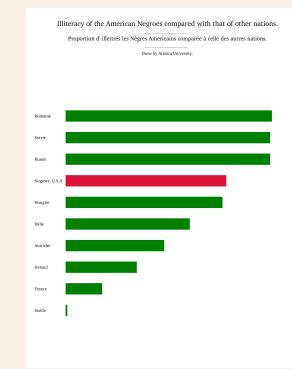
L'UNIVERSITÉ A ACTUELLEMENT 20 PROFESSEURS ET INSTRUCTEURS ET 250 ÉTUDIANTS.

ELLE EST COMPOSÉE DE CINQ BÂTIMENTS, 60 ACRES (ENVIRON 26 HECTARES) DE TERRAIN SERVANT DE COUR ET DE CHAMP DE RÉCRÉATION, ET D'UNE BIBLIOTHÈQUE CONTENANT 11,000 VOLUMES.

SON BUT EST D'ÉLEVER ET DE CIVILISER LES FILS DES NÈGRES AFFRANCHIS EN DONNANT AUX MIEUX DOUÉS UNE ÉDUCATION DANS LES ARTS LIBÉRAUX EN ACCORD AVEC LES IDÉES LES PLUS PROGRESSISTES DE L'ÉPOQUE.

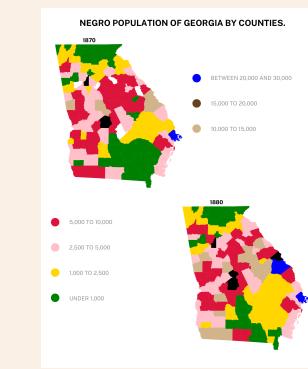
L'ACCOMPLISSEMENT DE CETTE ŒUVRE DEMANDE UNE DOTATION DE \$500,000 (2,500,000 FRANCS).

# Taxonomy



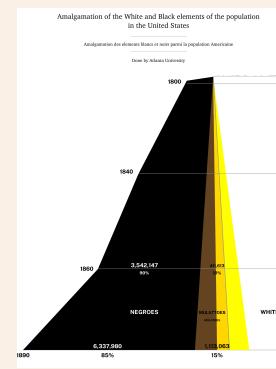
Bars

52.63%



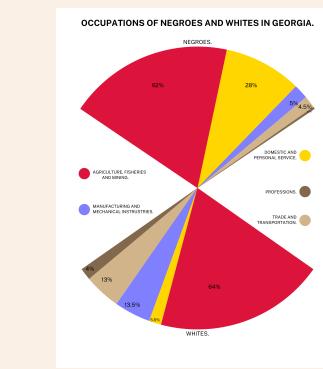
Maps

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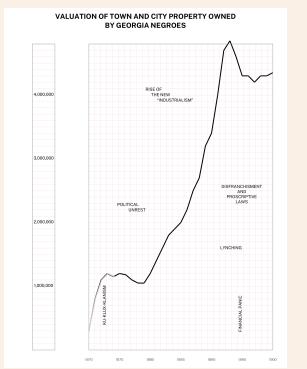
Blocks

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Circles

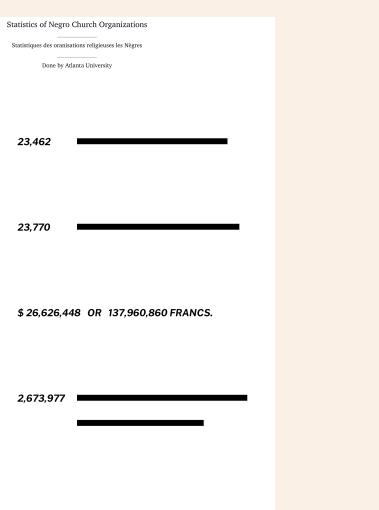
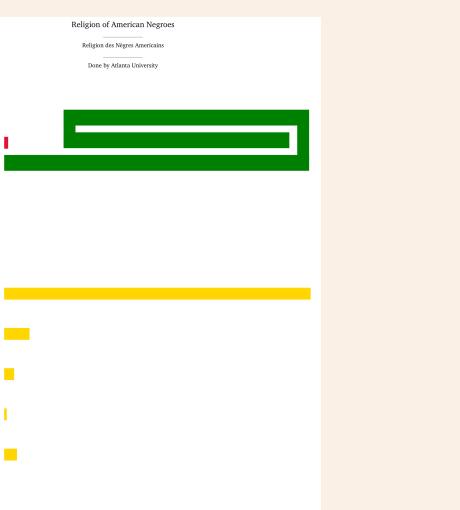
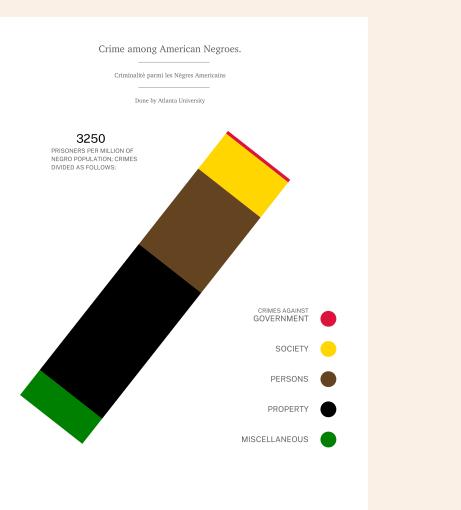
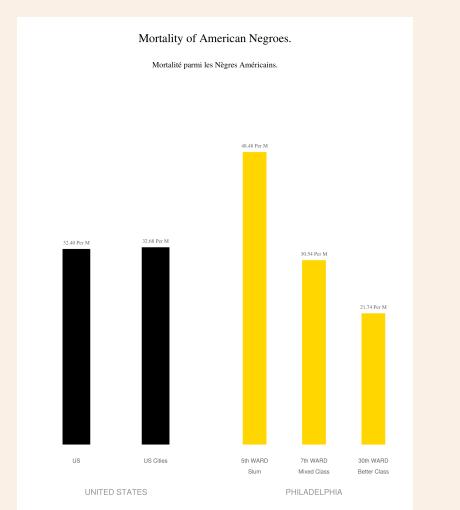
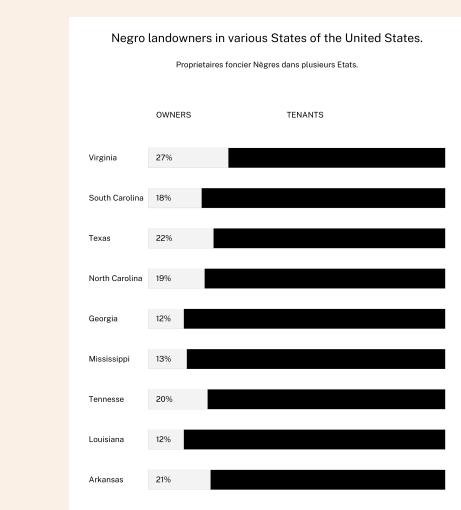
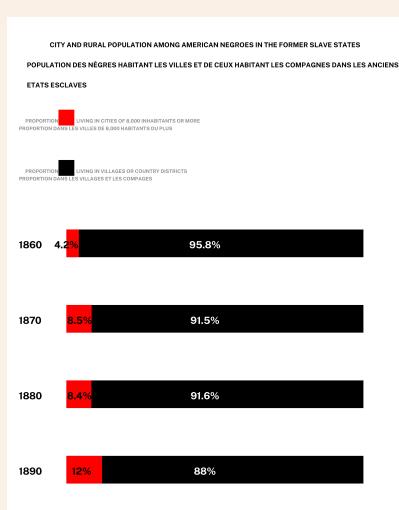
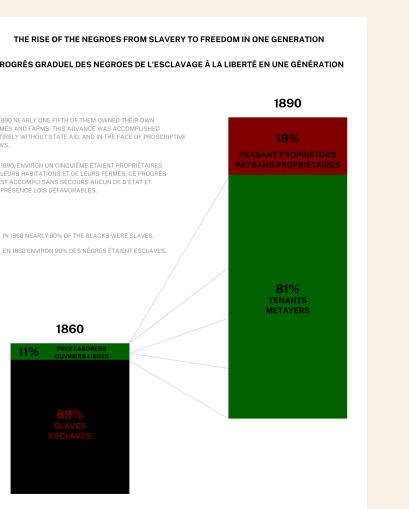
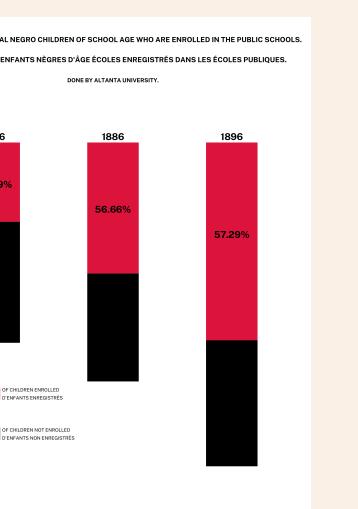
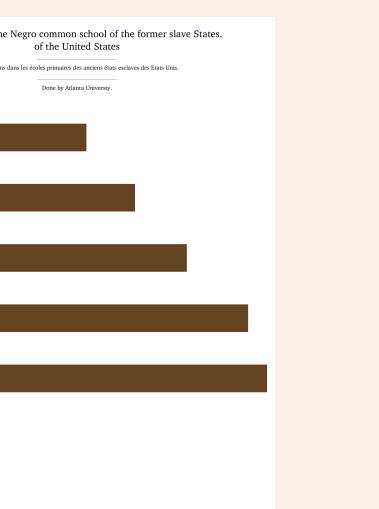
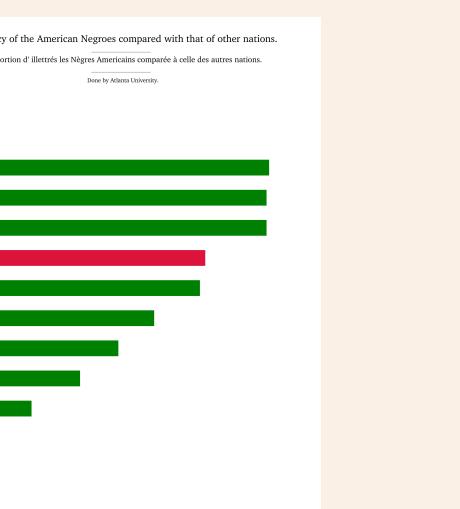
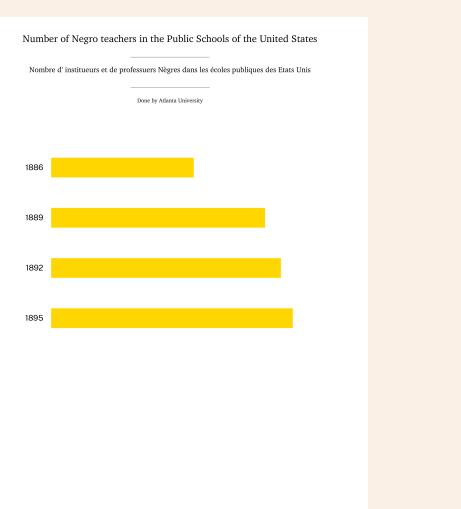
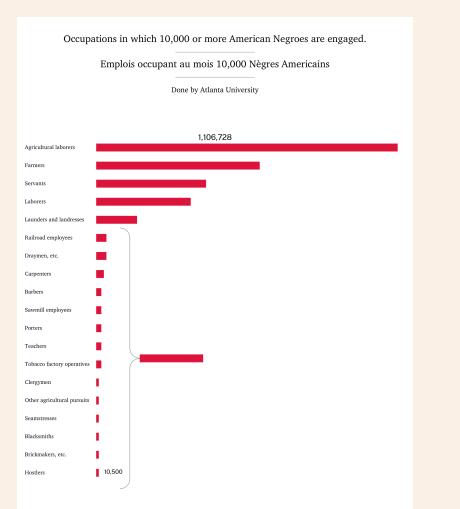
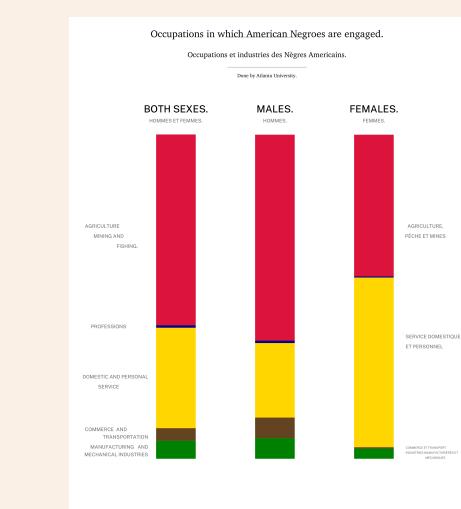
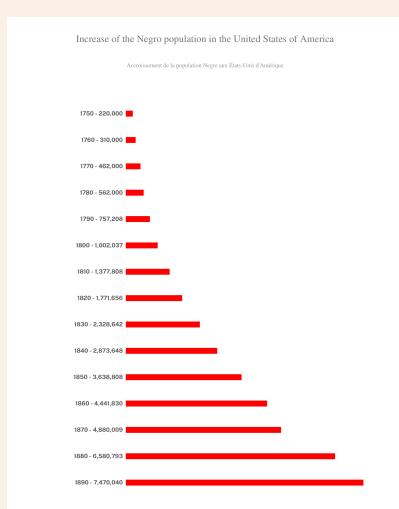
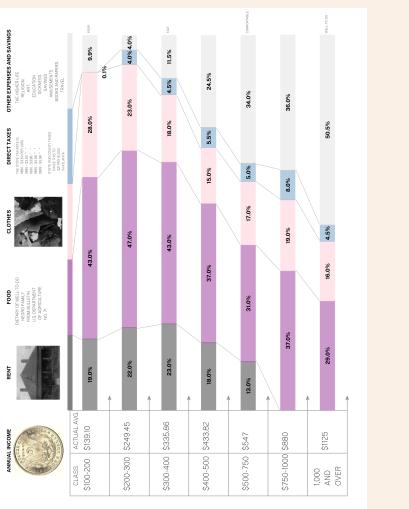
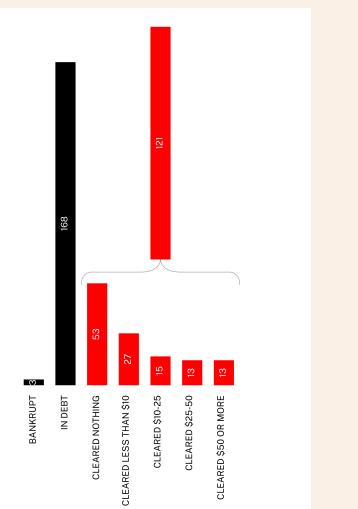
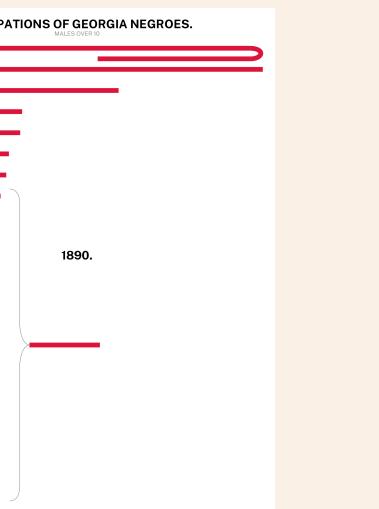
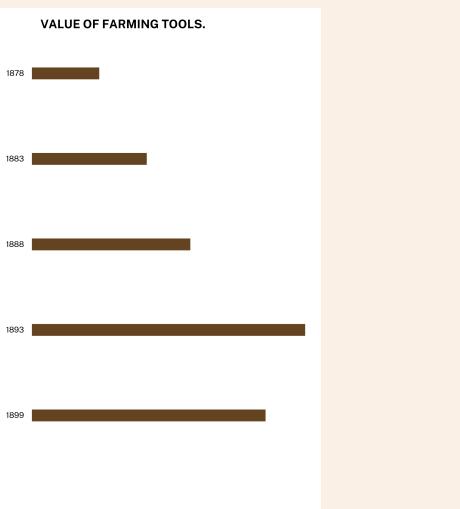
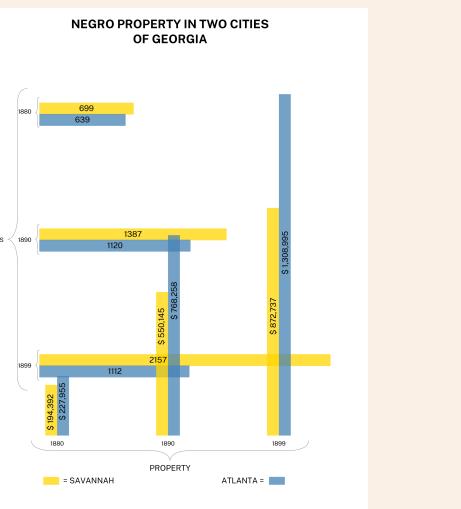
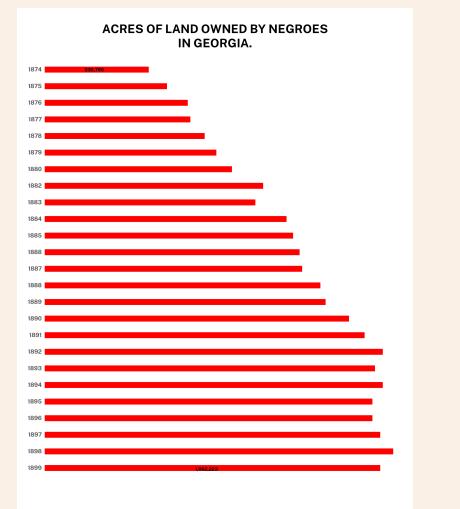
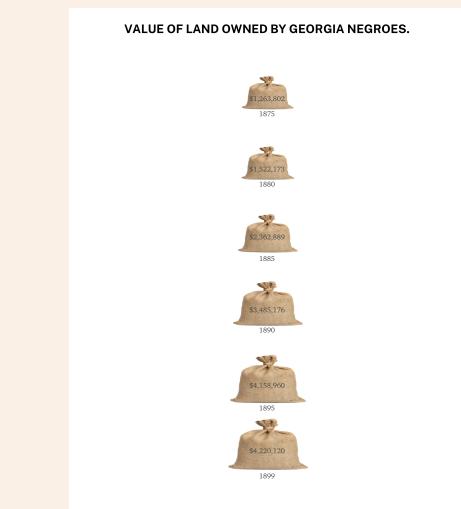
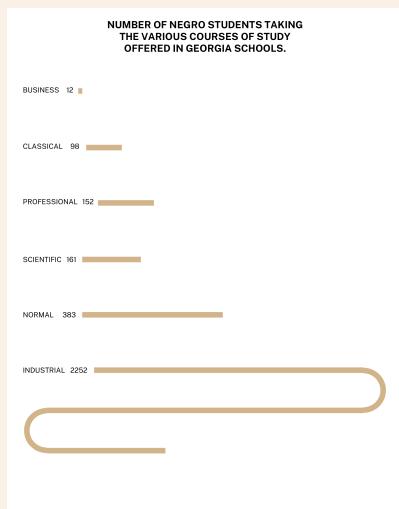
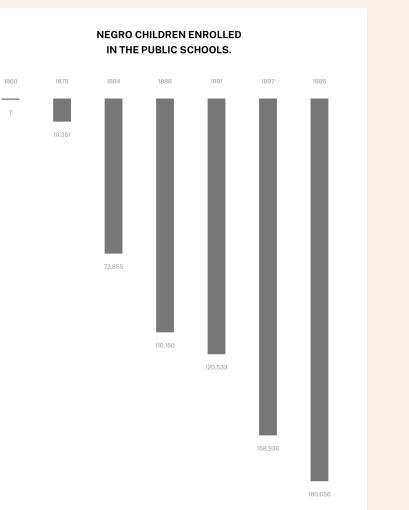
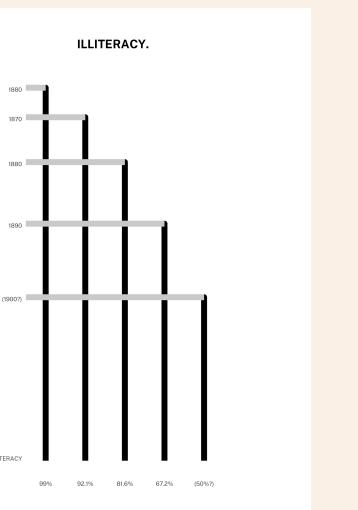
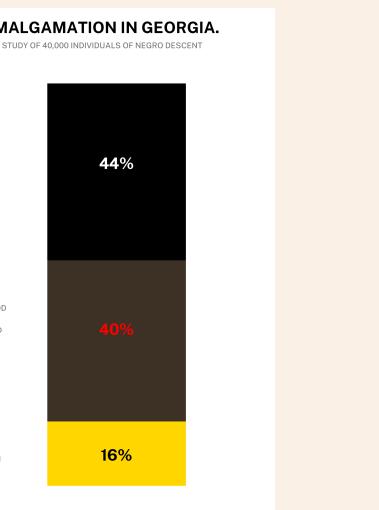
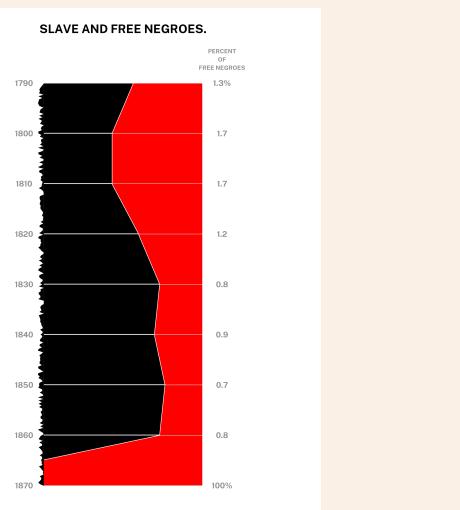
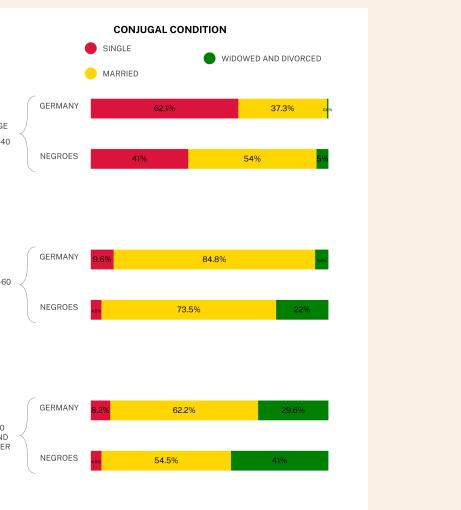
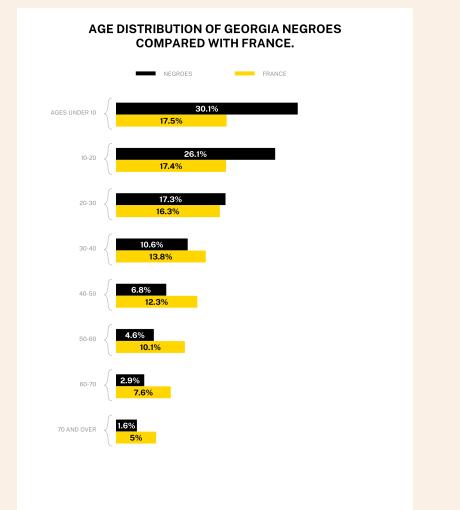
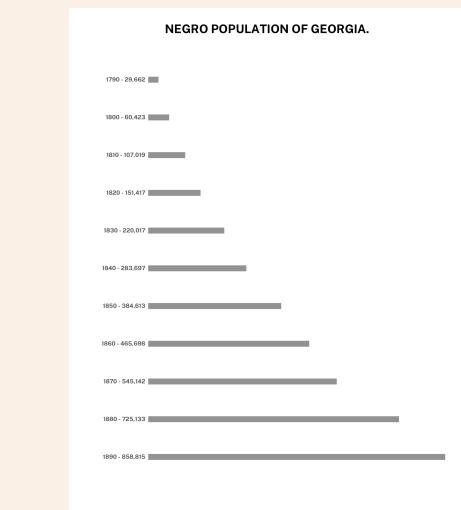
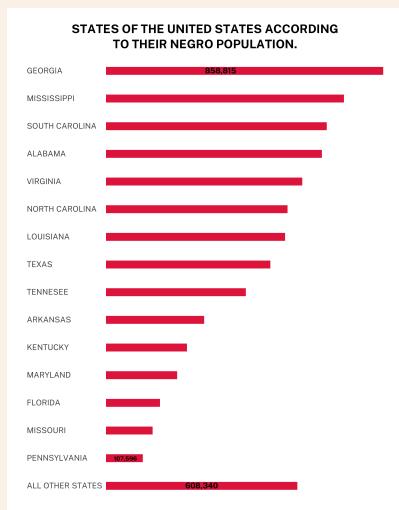
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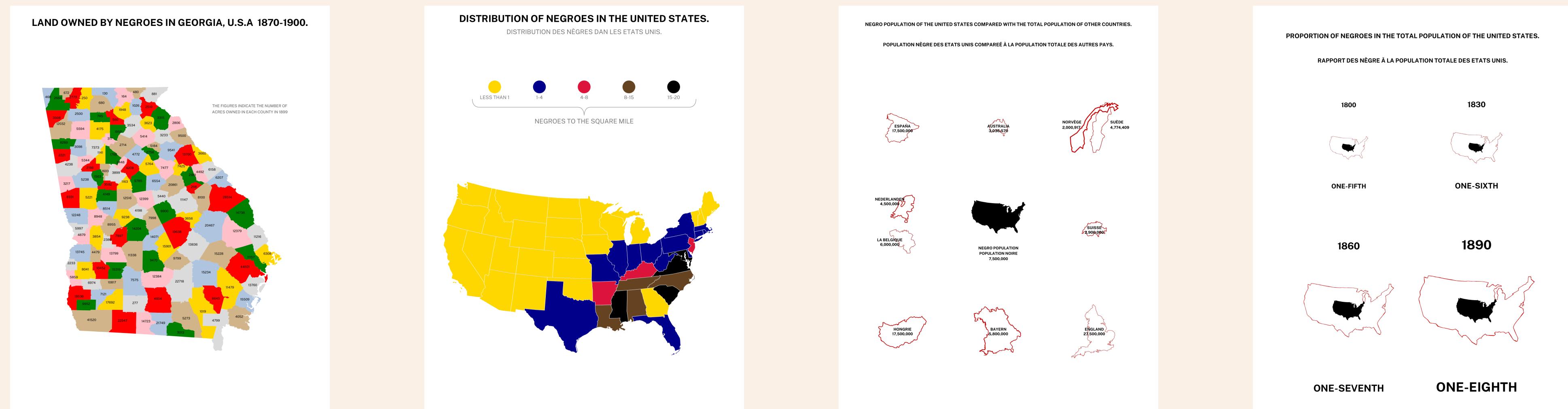
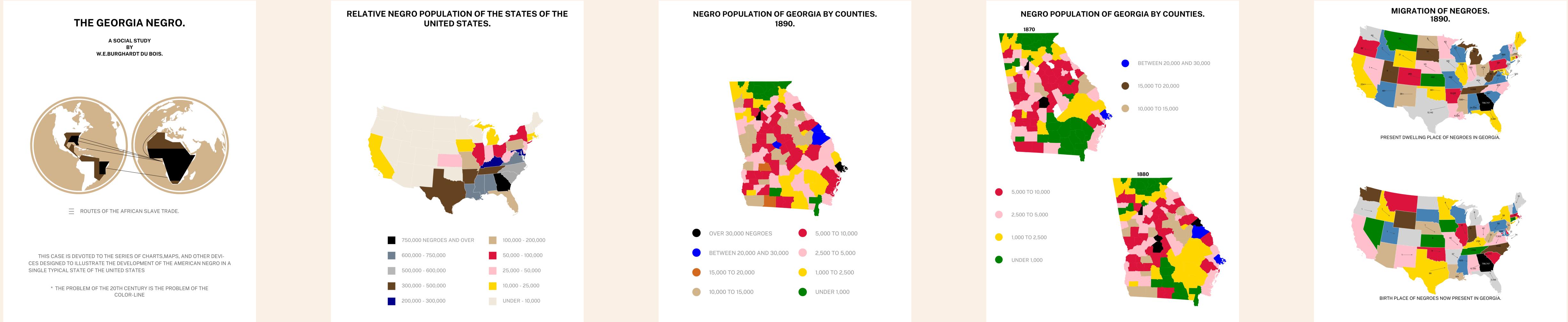
Graphs

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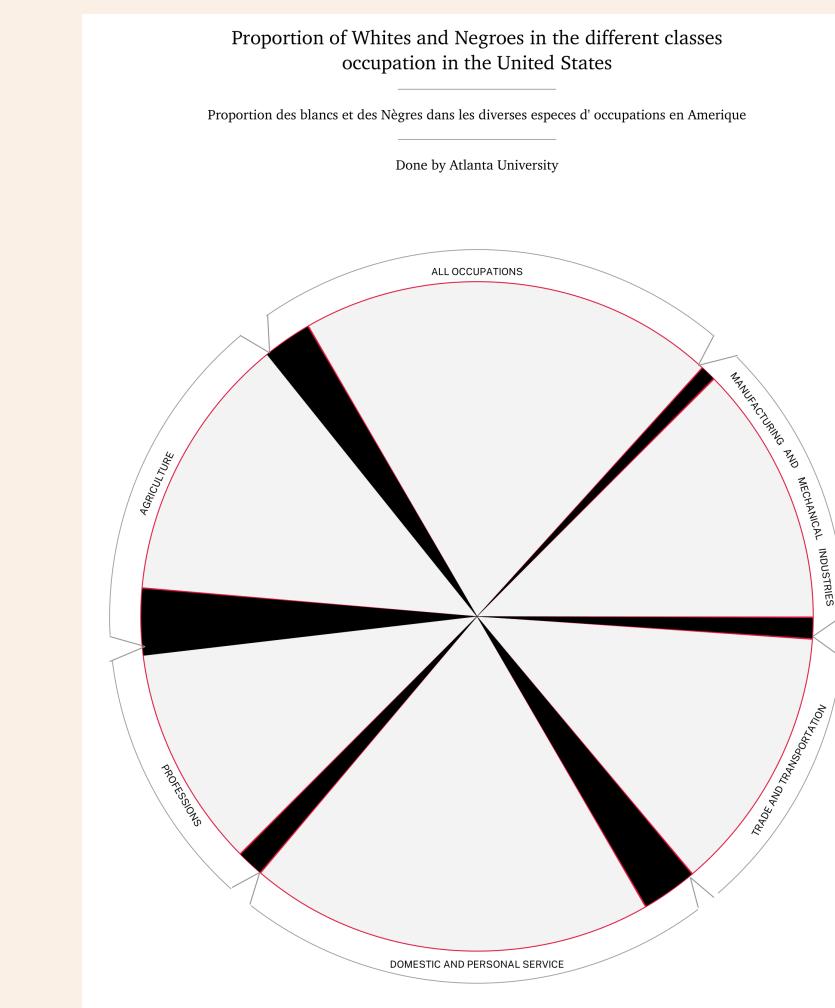
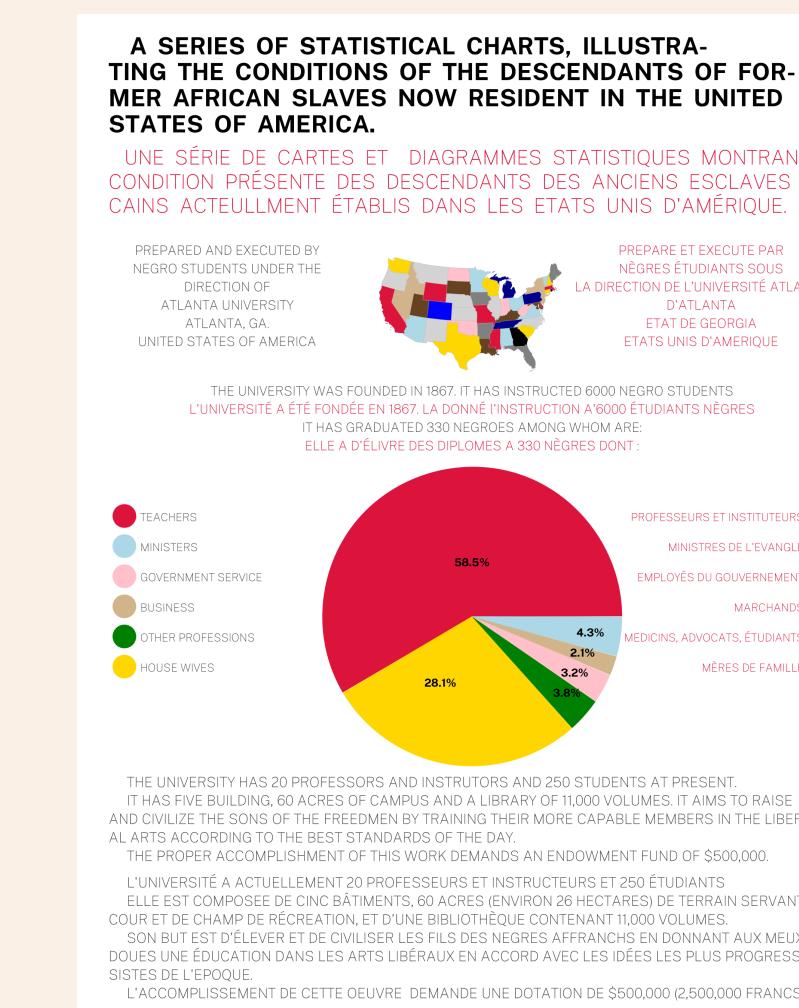
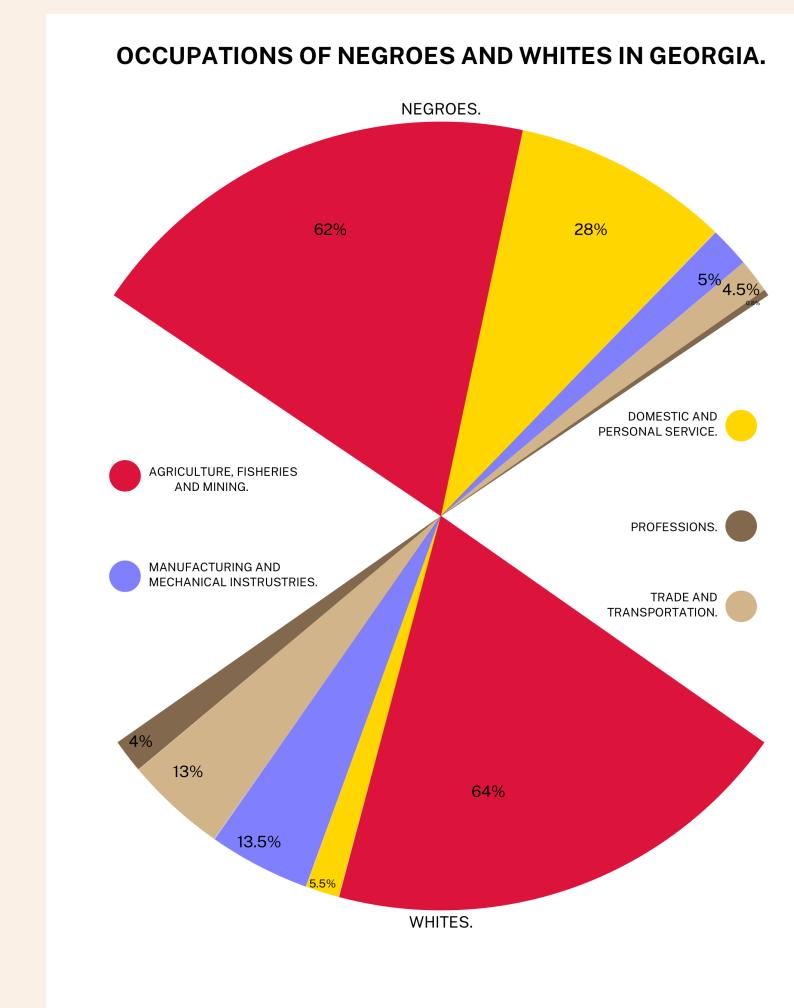
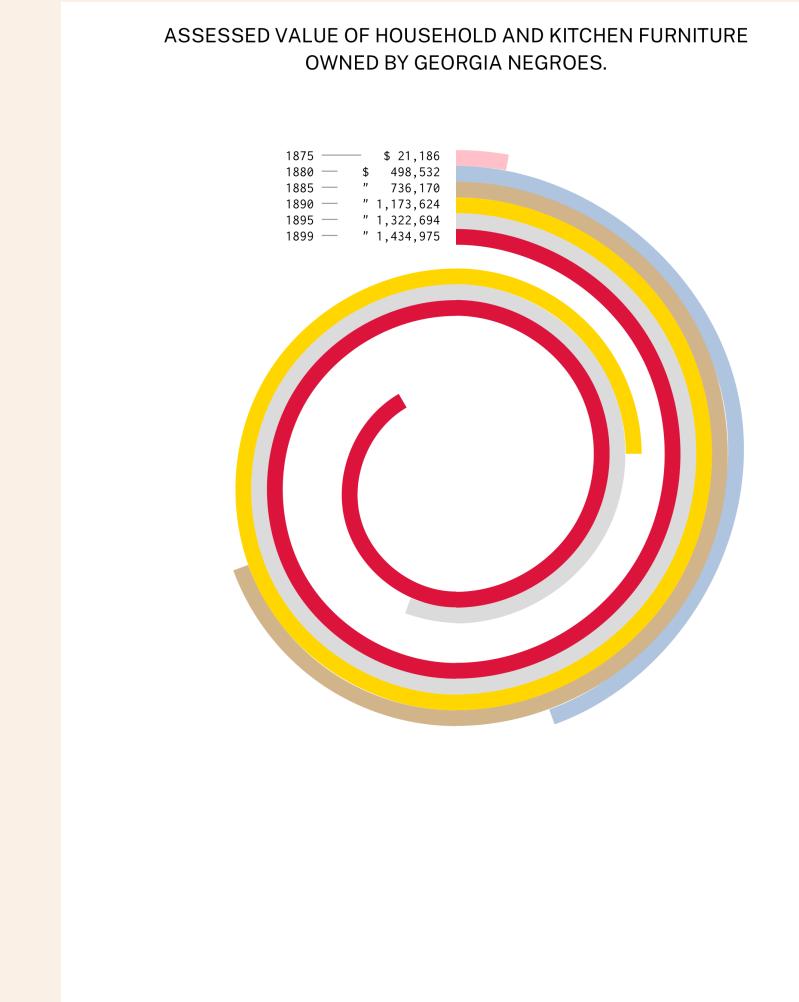
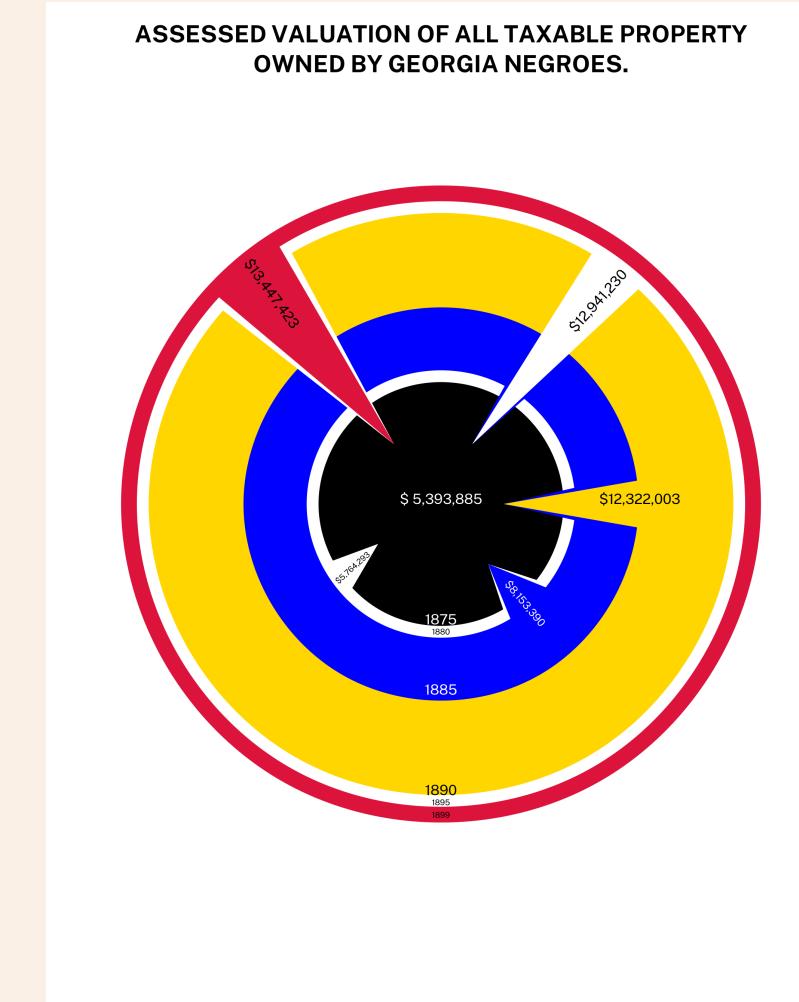
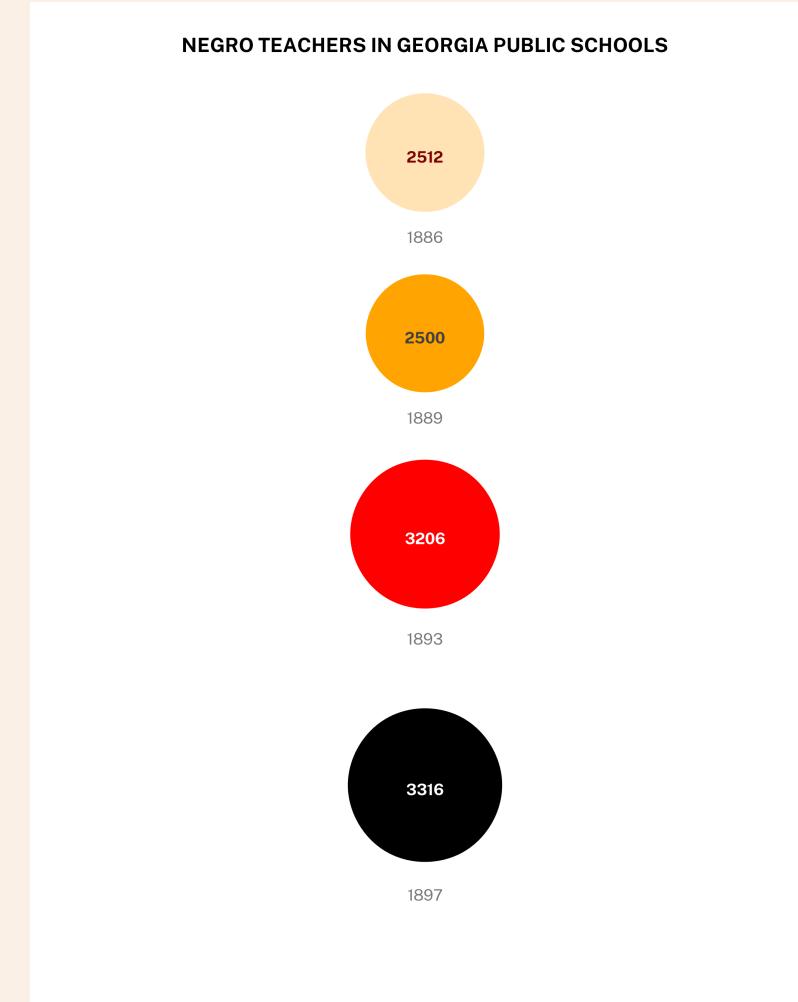
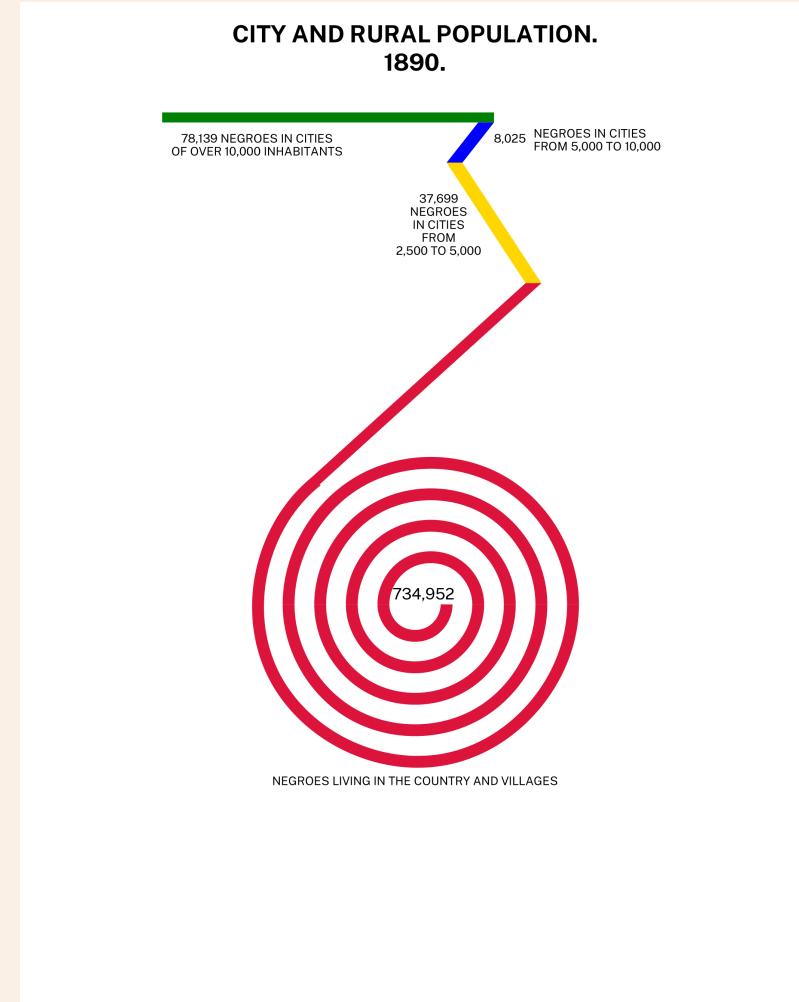
# Bars



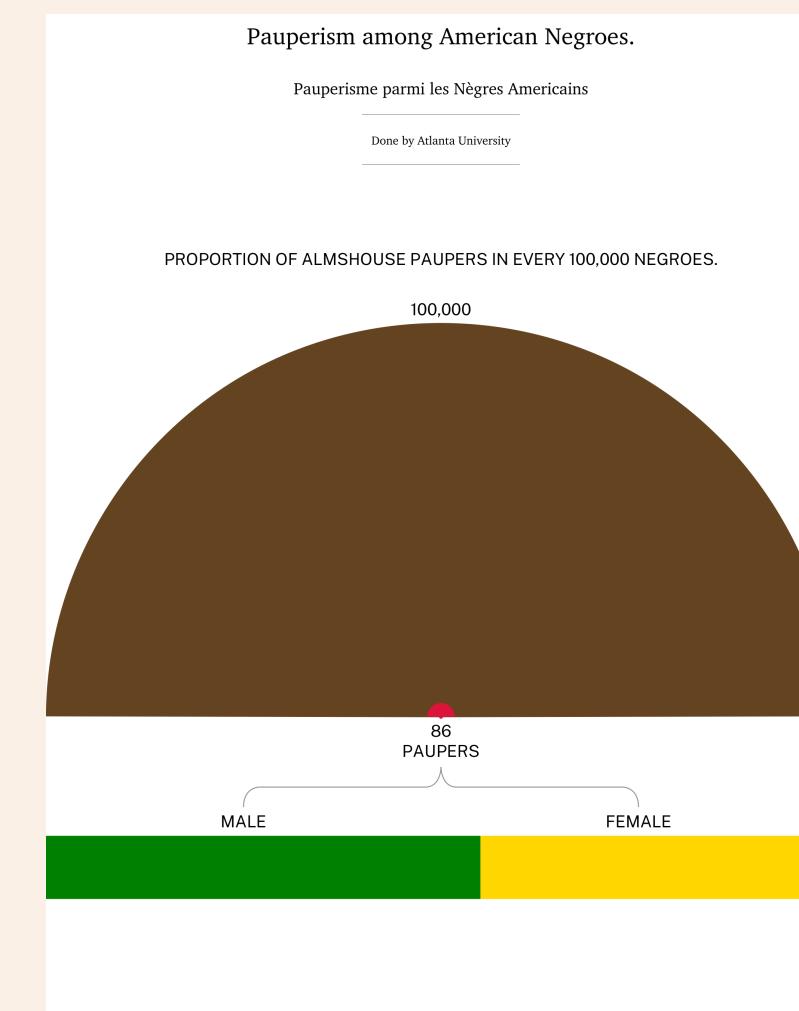
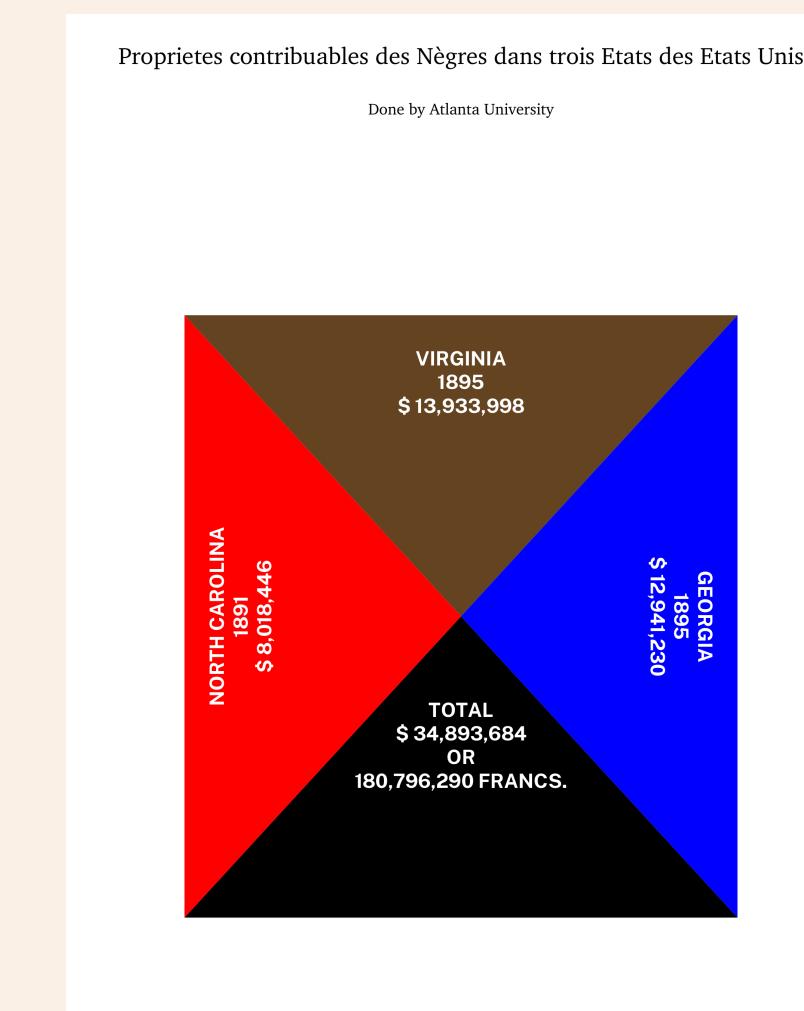
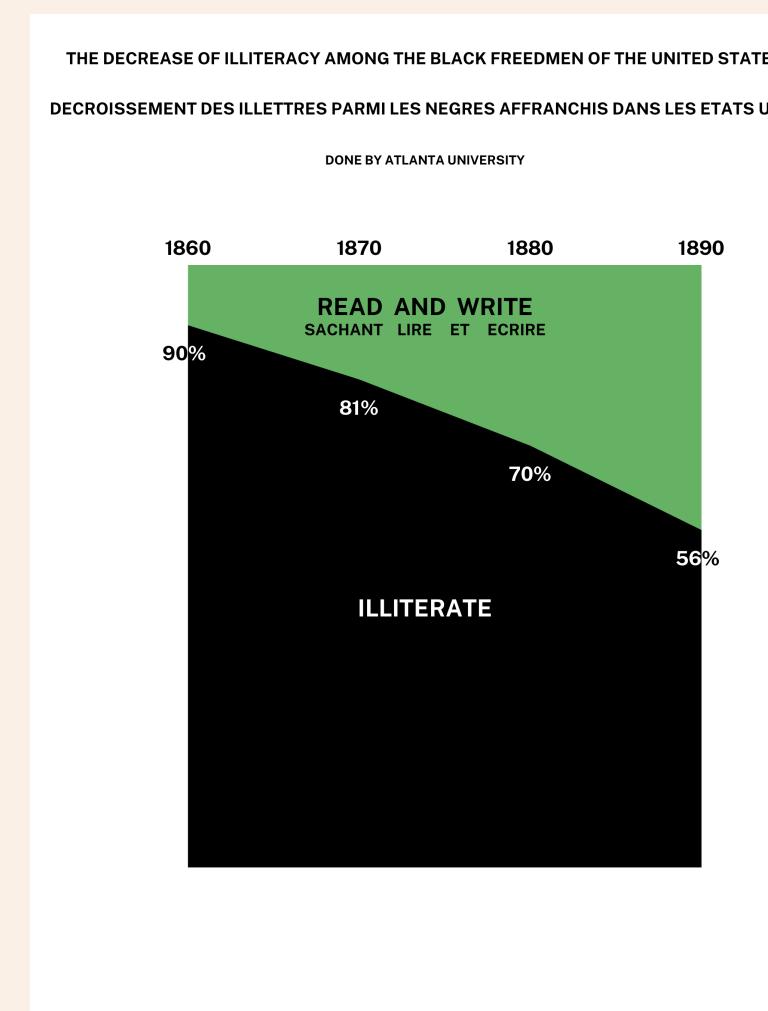
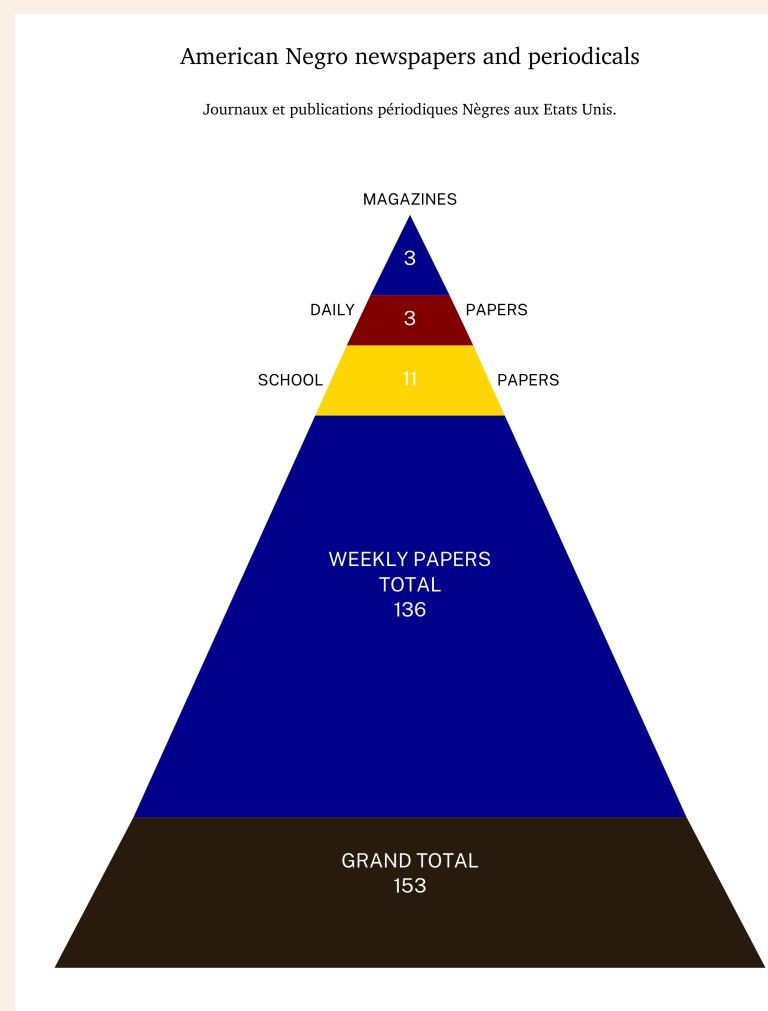
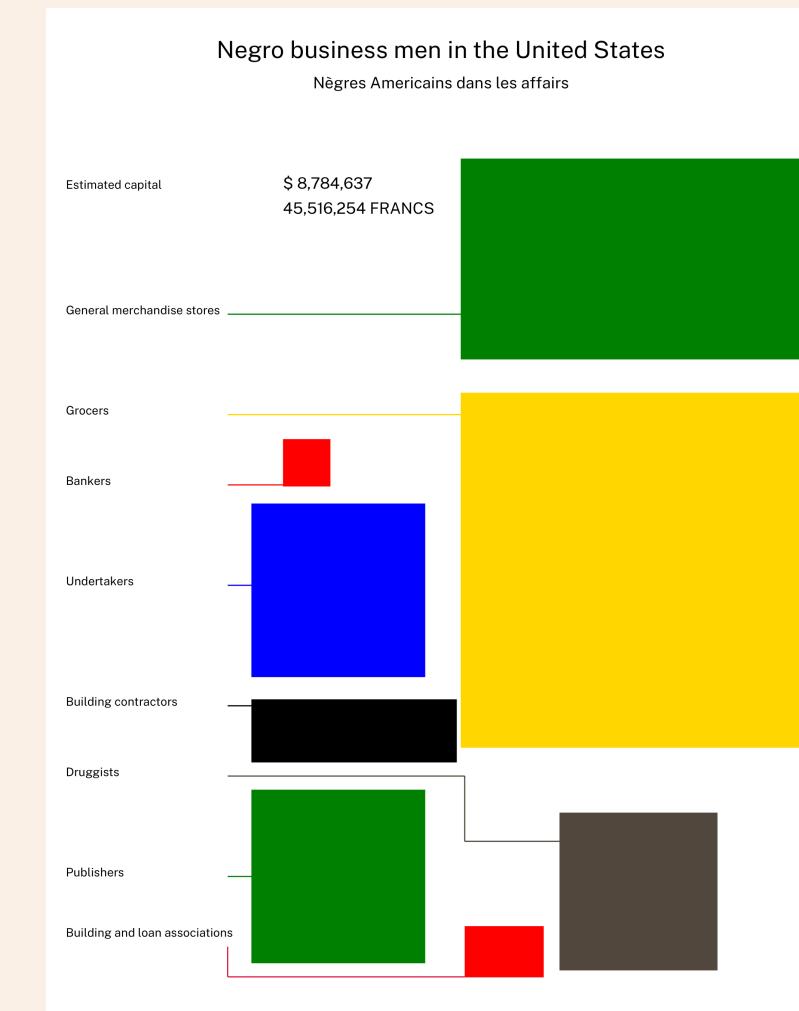
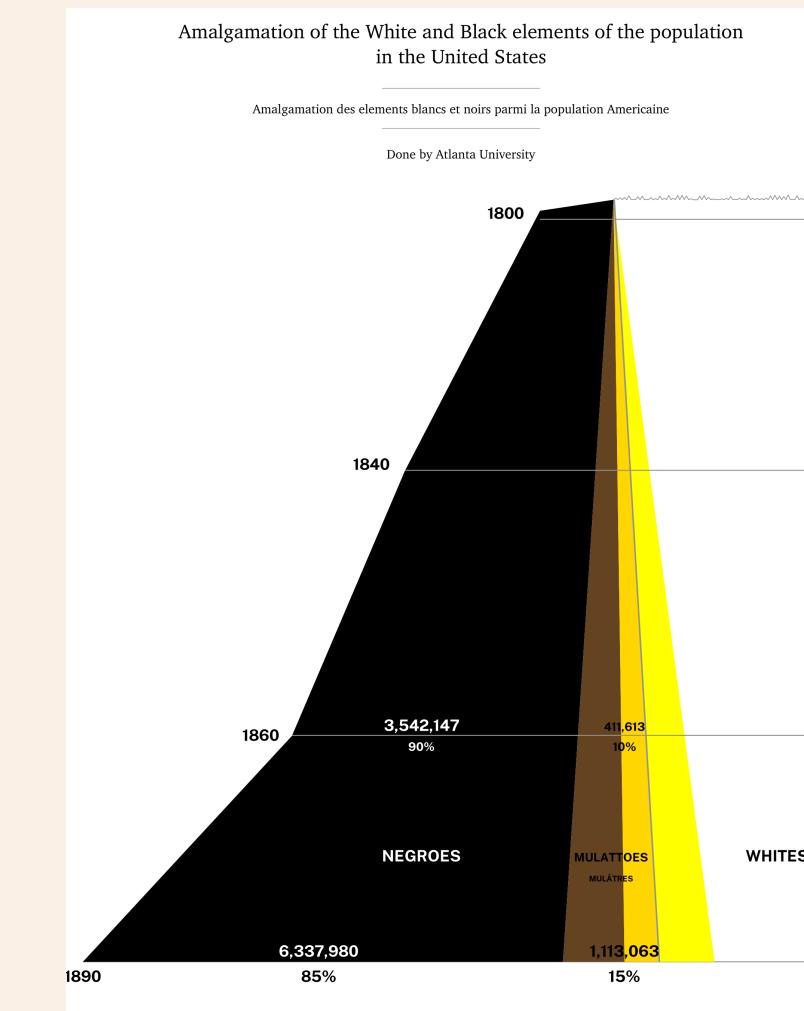
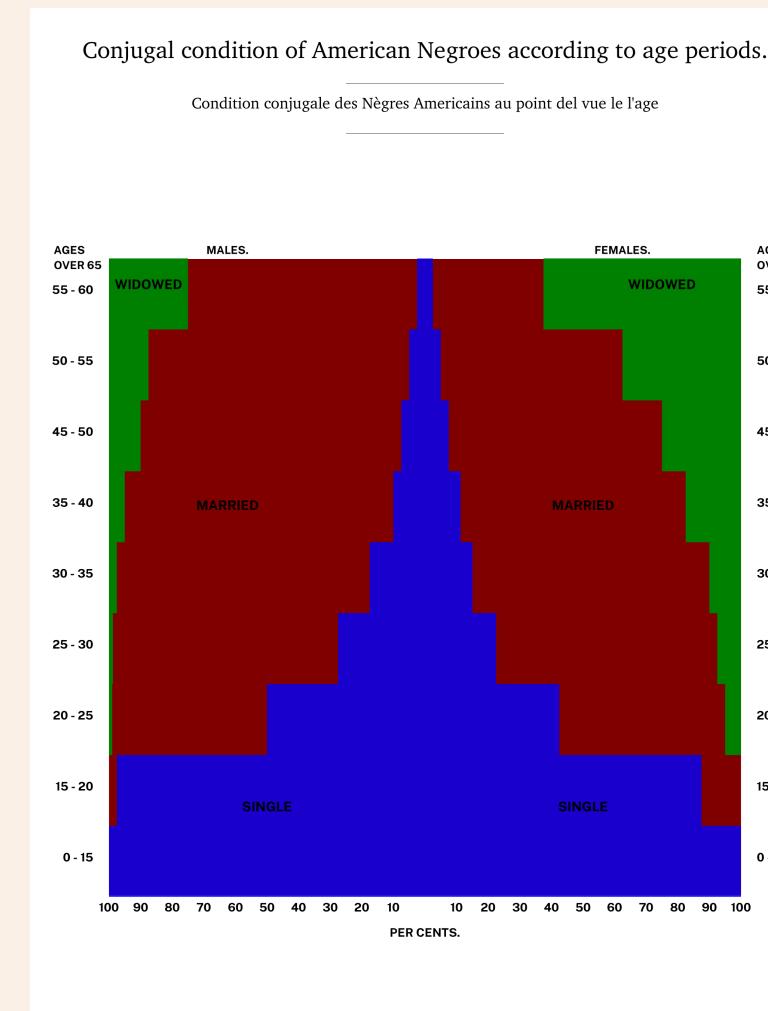
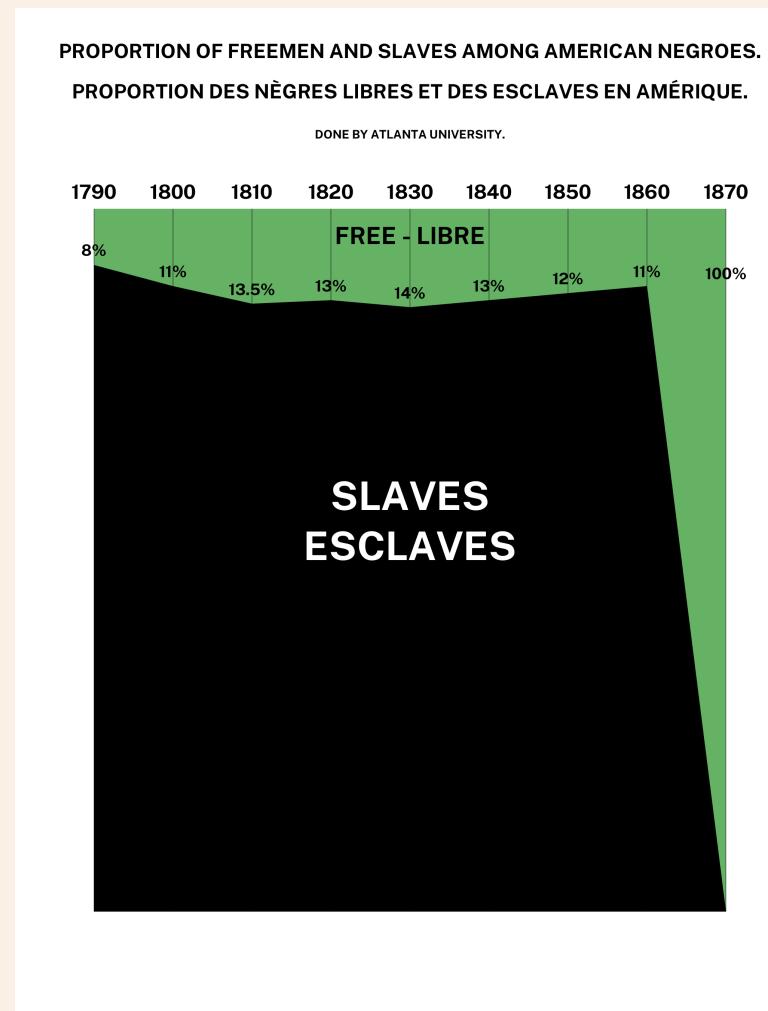
# Maps



# Circles

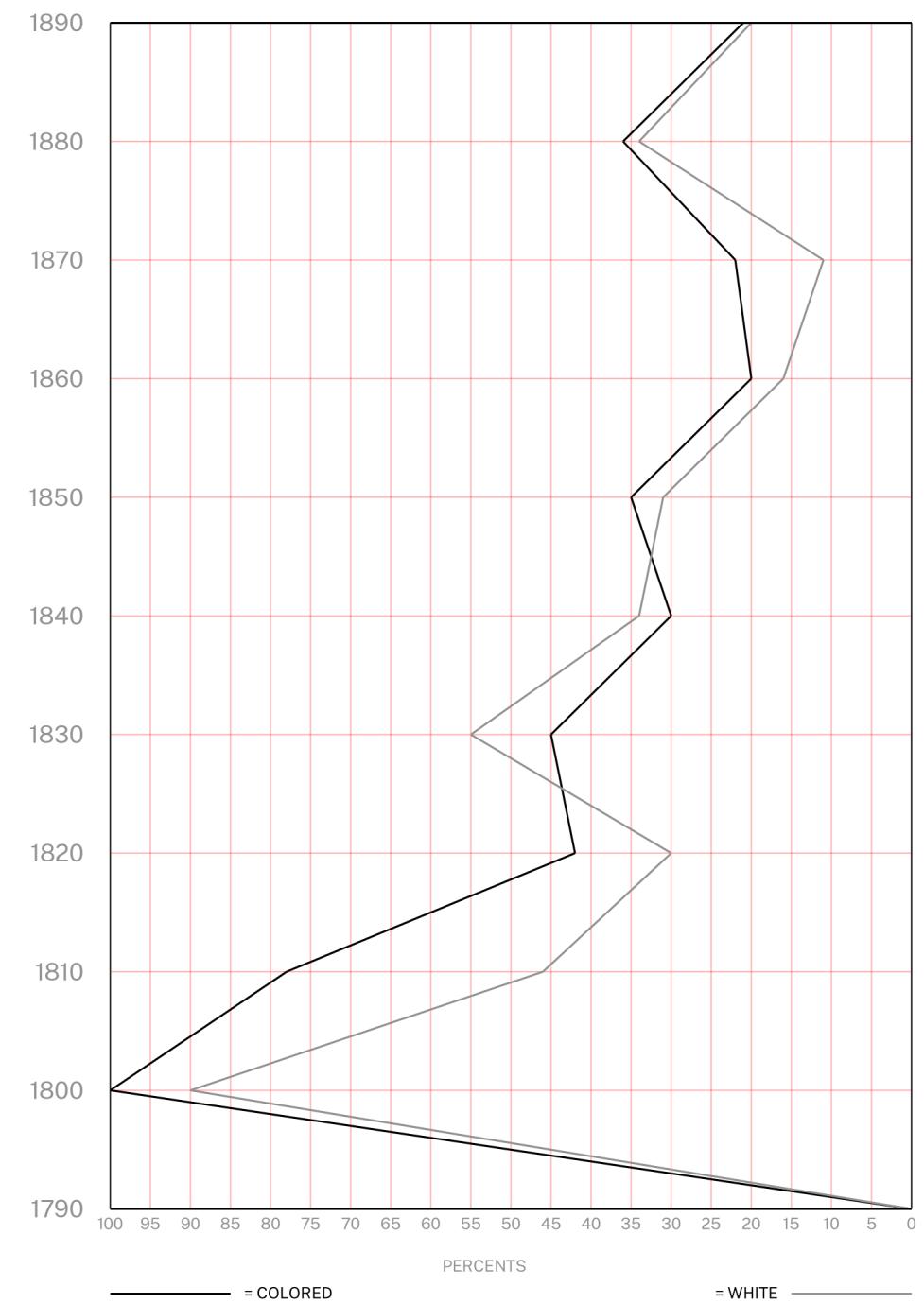


# Blocks

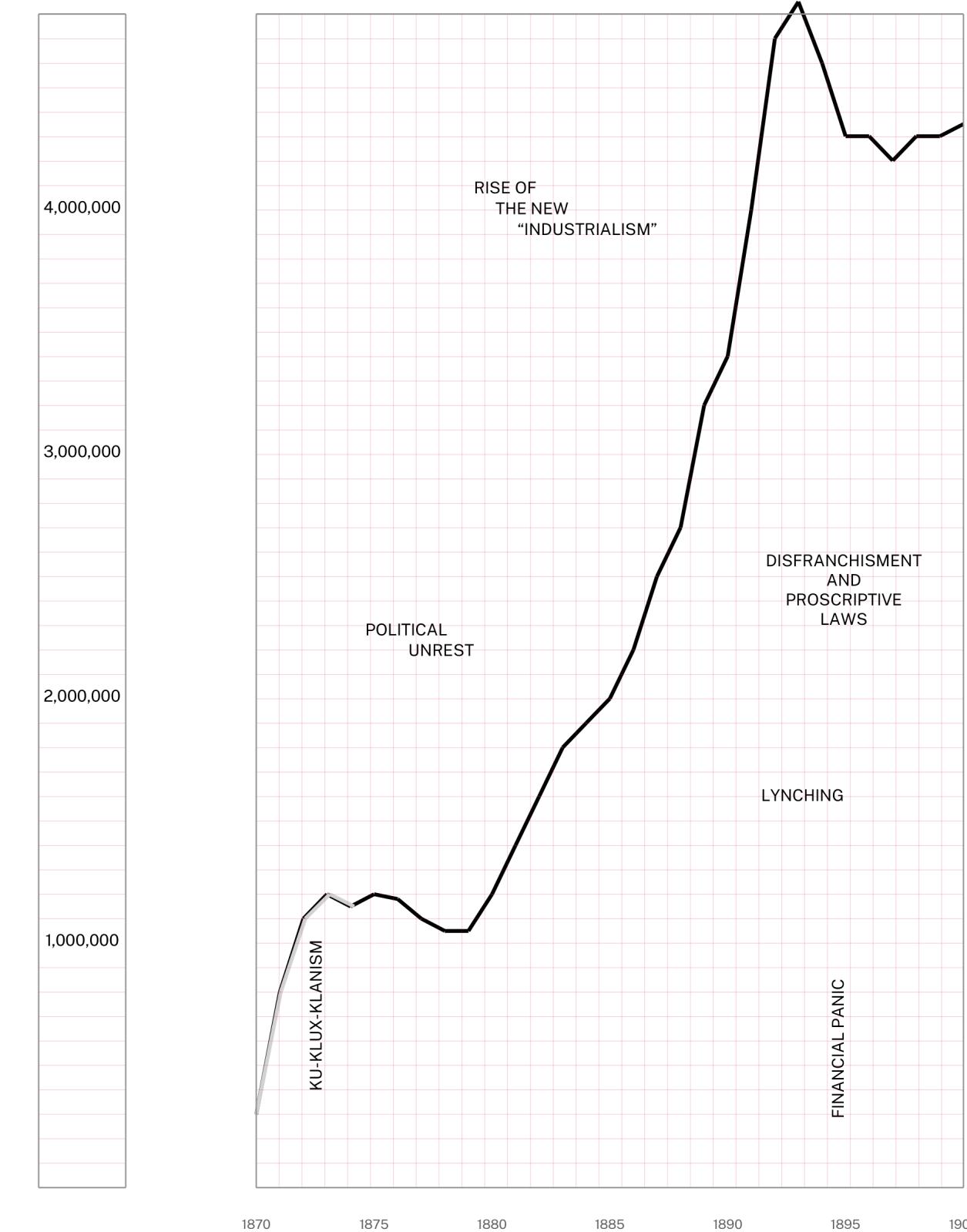


# Graphs

**COMPARATIVE INCREASE OF WHITE AND COLORED POPULATION OF GEORGIA.**

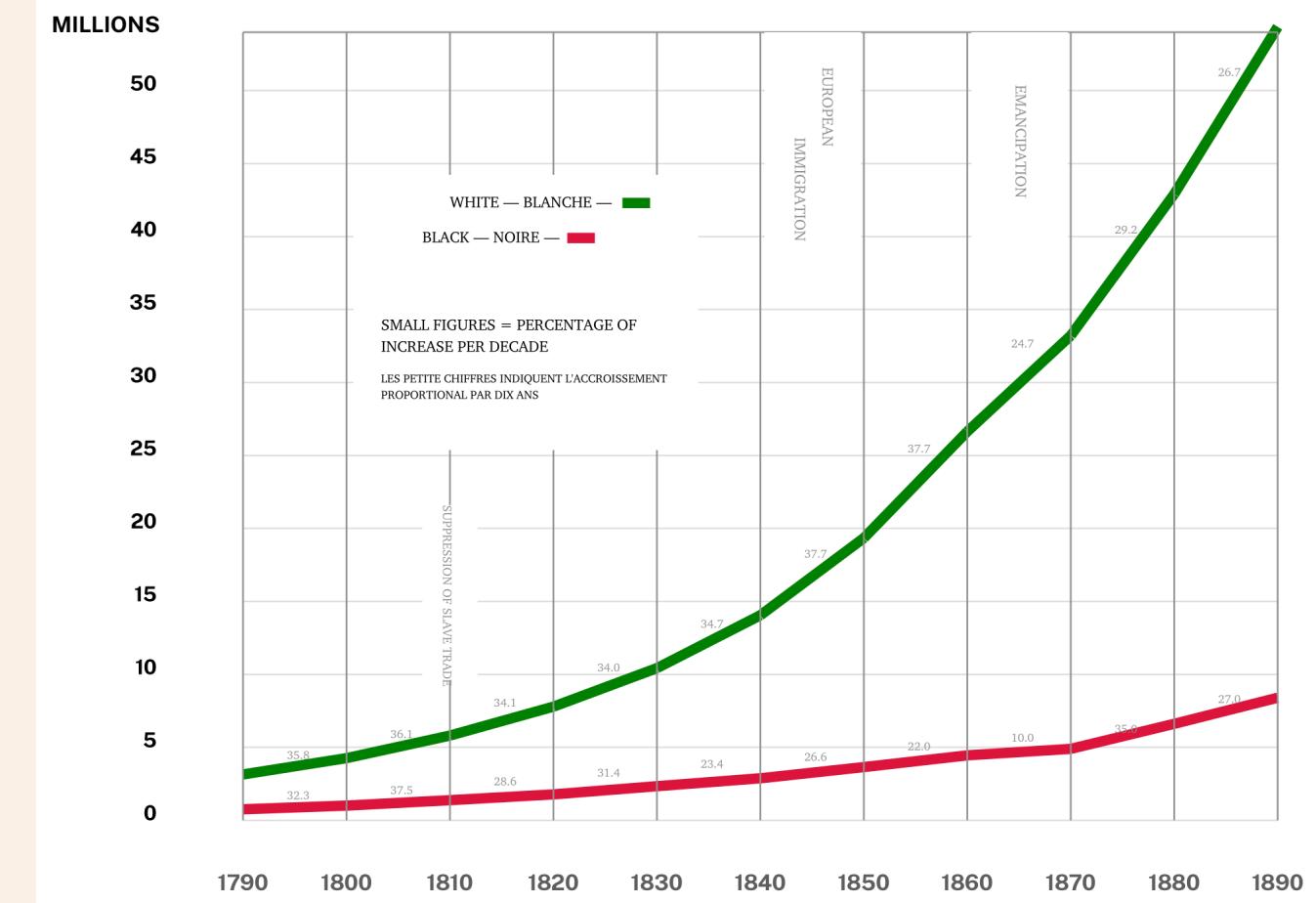


**VALUATION OF TOWN AND CITY PROPERTY OWNED BY GEORGIA NEGROES**

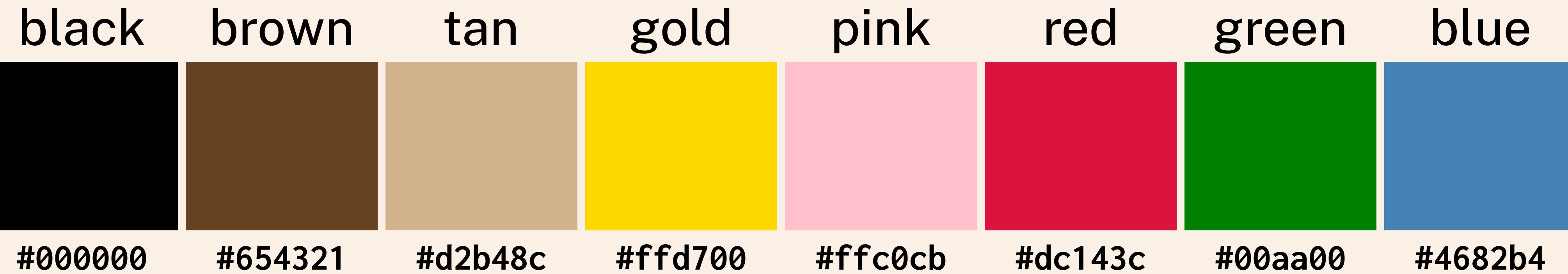


Comparative rate of increase of the White and Negro elements population of the United States

Accroissement proportionnel des éléments blancs et noirs aux Etats-Unis  
Done by Atlanta University



# Color Palette





# What Visualization Catches Your Eye?

If you were attending the 1900 Paris Expo, which visualization would grab your attention?

In writing your next article on the state of Black America, which visualization(s) would you use to complement your story?

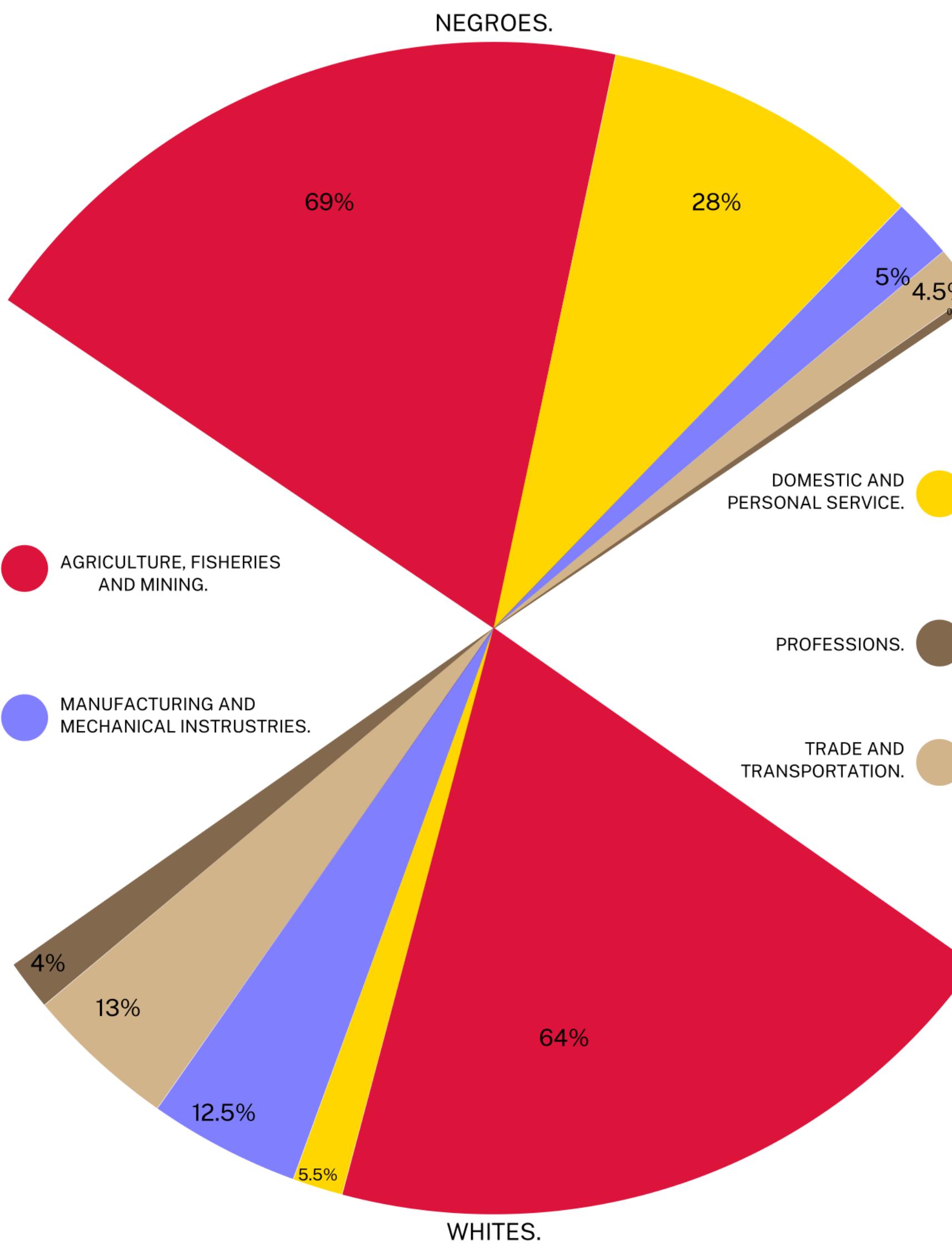
Make a data sketch (using pen/paper, whatever) using a Du Bois visual as inspiration

# 4

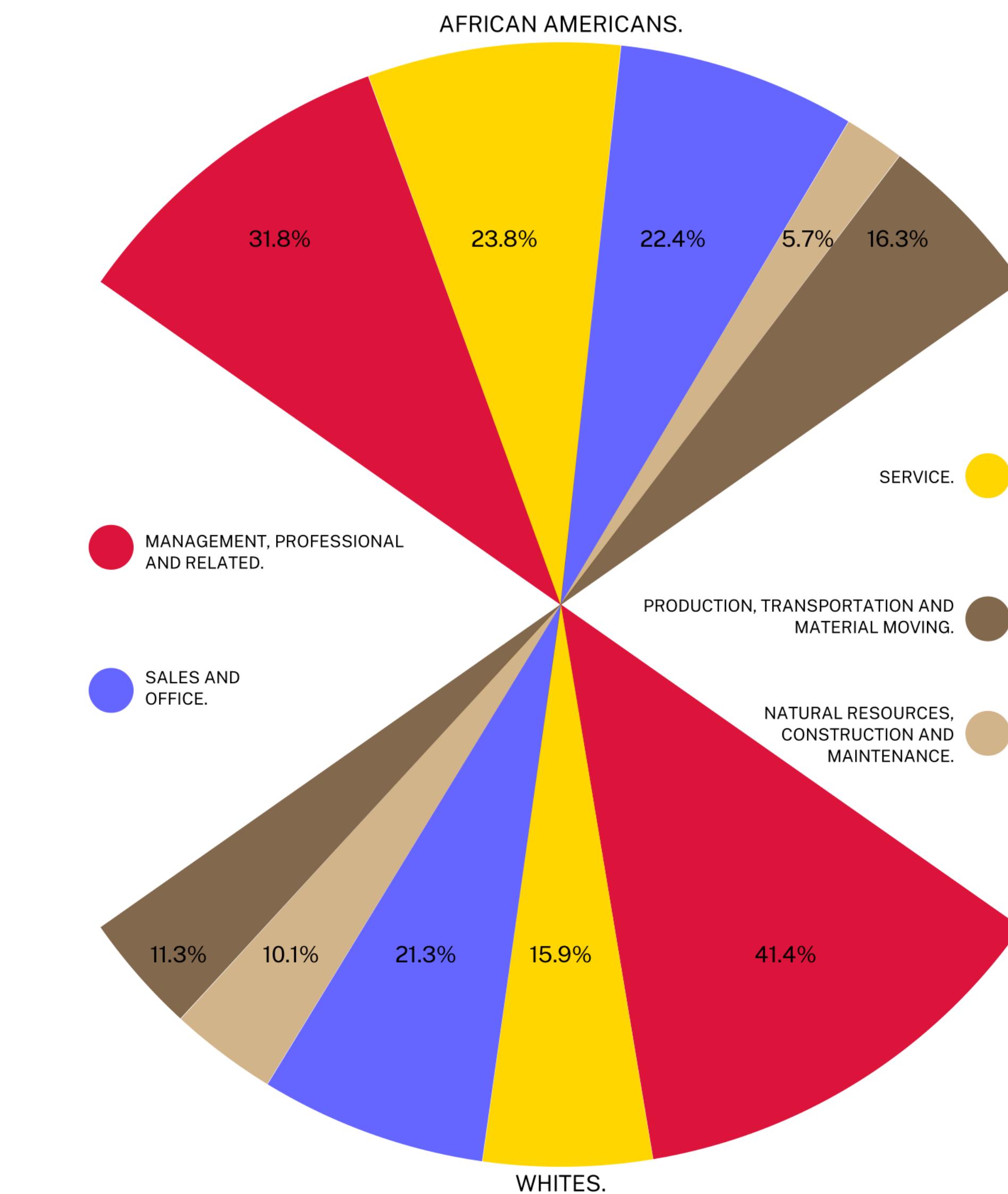
## Working with Contemporary Data

Applying the Du Bois  
style and principles to  
contemporary data and  
issues.

## OCCUPATIONS OF NEGROES AND WHITES IN GEORGIA.

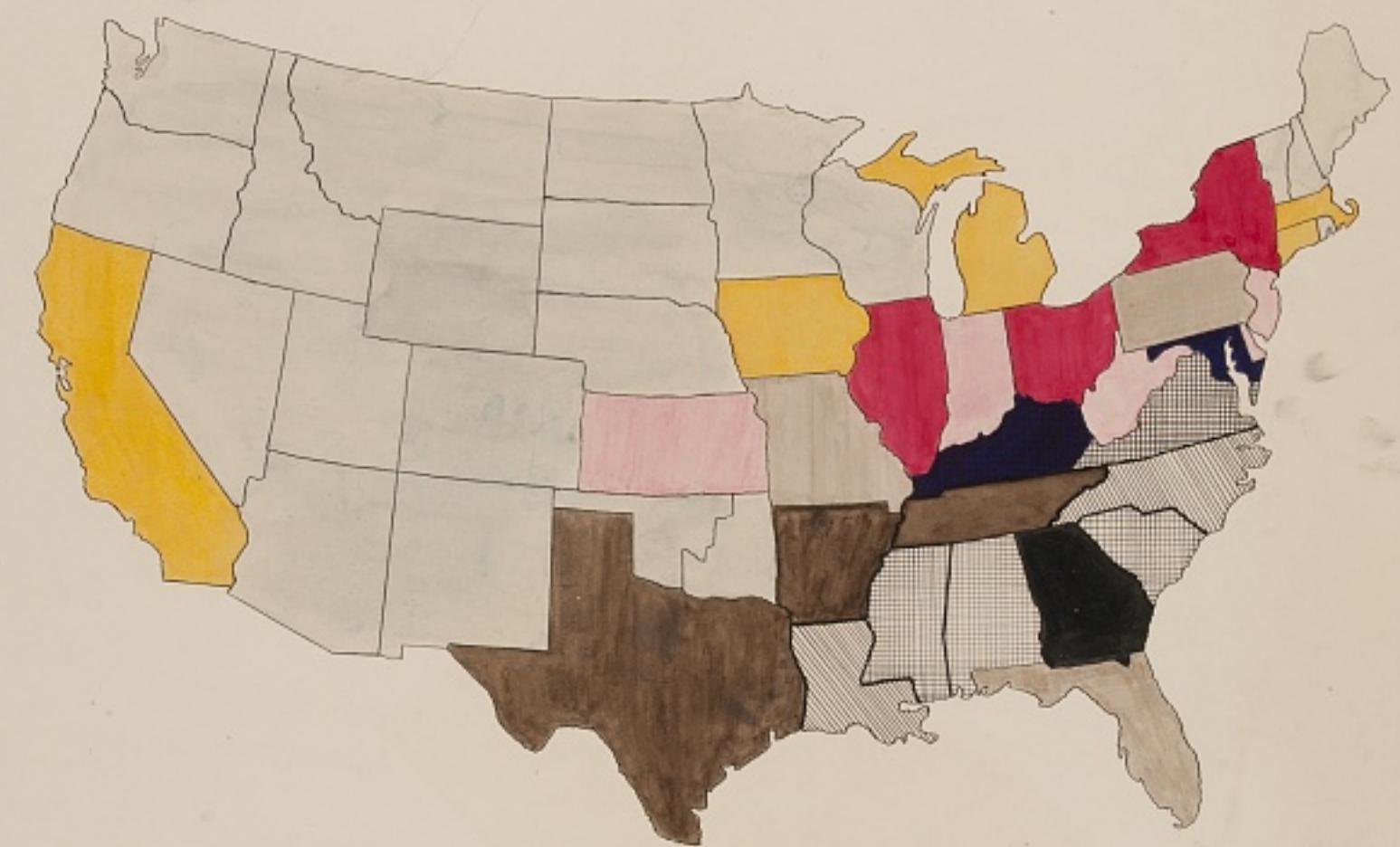


## OCCUPATIONS OF AFRICAN AMERICANS AND WHITES IN THE USA (2019).



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey

RELATIVE NEGRO POPULATION OF THE STATES OF THE UNITED STATES.



■ 750,000 NEGROES AND OVER

■ 100,000 — 200,000

■ 600,000 — 750,000

■ 50,000 — 100,000

■ 500,000 — 600,000

■ 25,000 — 50,000

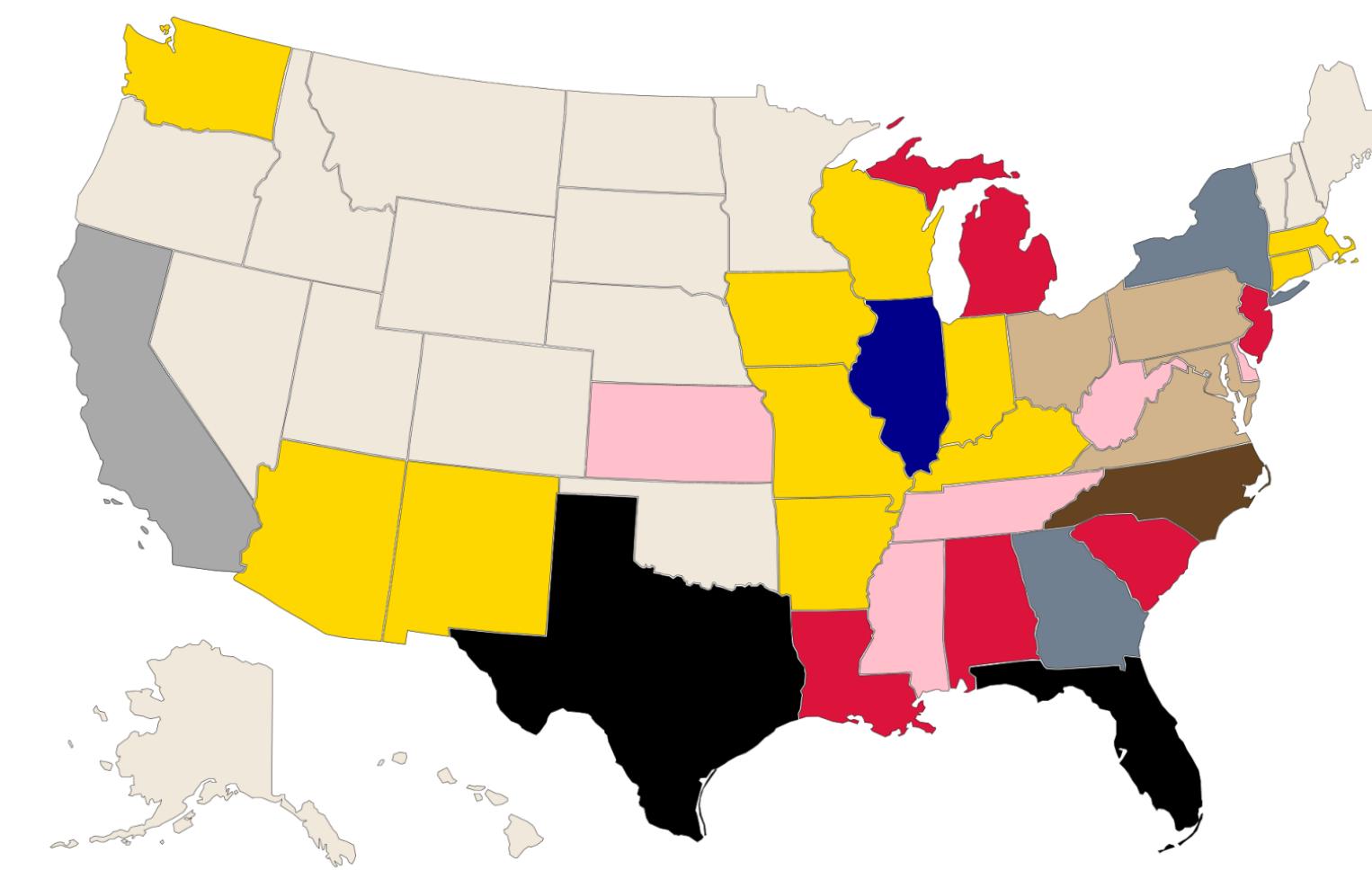
■ 300,000 — 500,000

■ 10,000 — 25,000

■ 200,000 — 300,000

■ UNDER — 10,000

RELATIVE BLACK POPULATION OF THE STATES OF THE UNITED STATES. (2021)



■ 4.0 - 3.6 MILLION

■ 2.0 - 1.6 MILLION

■ 3.6 - 3.2 MILLION

■ 1.6 - 1.2 MILLION

■ 3.2 - 2.8 MILLION

■ 1.2 - 0.8 MILLION

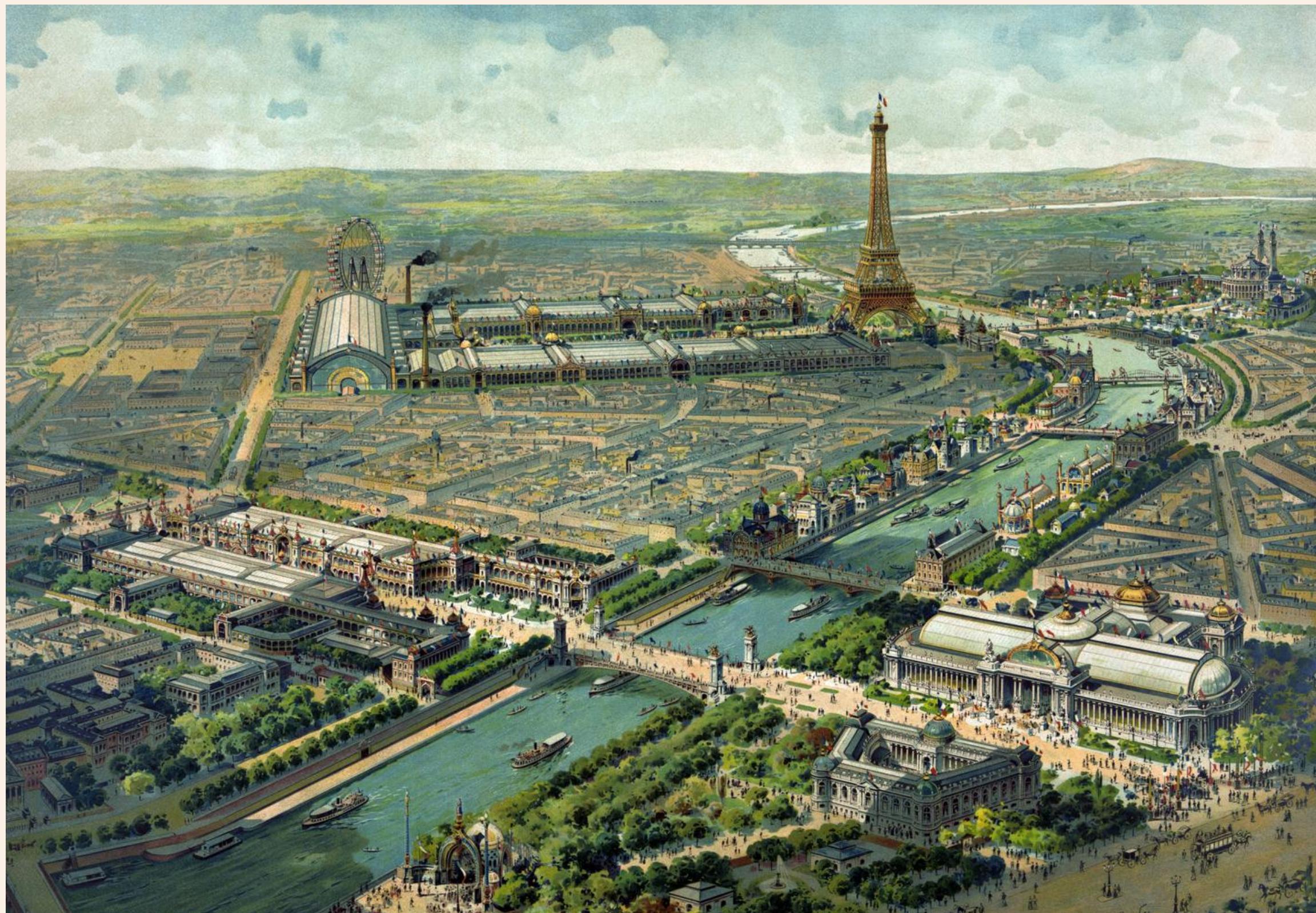
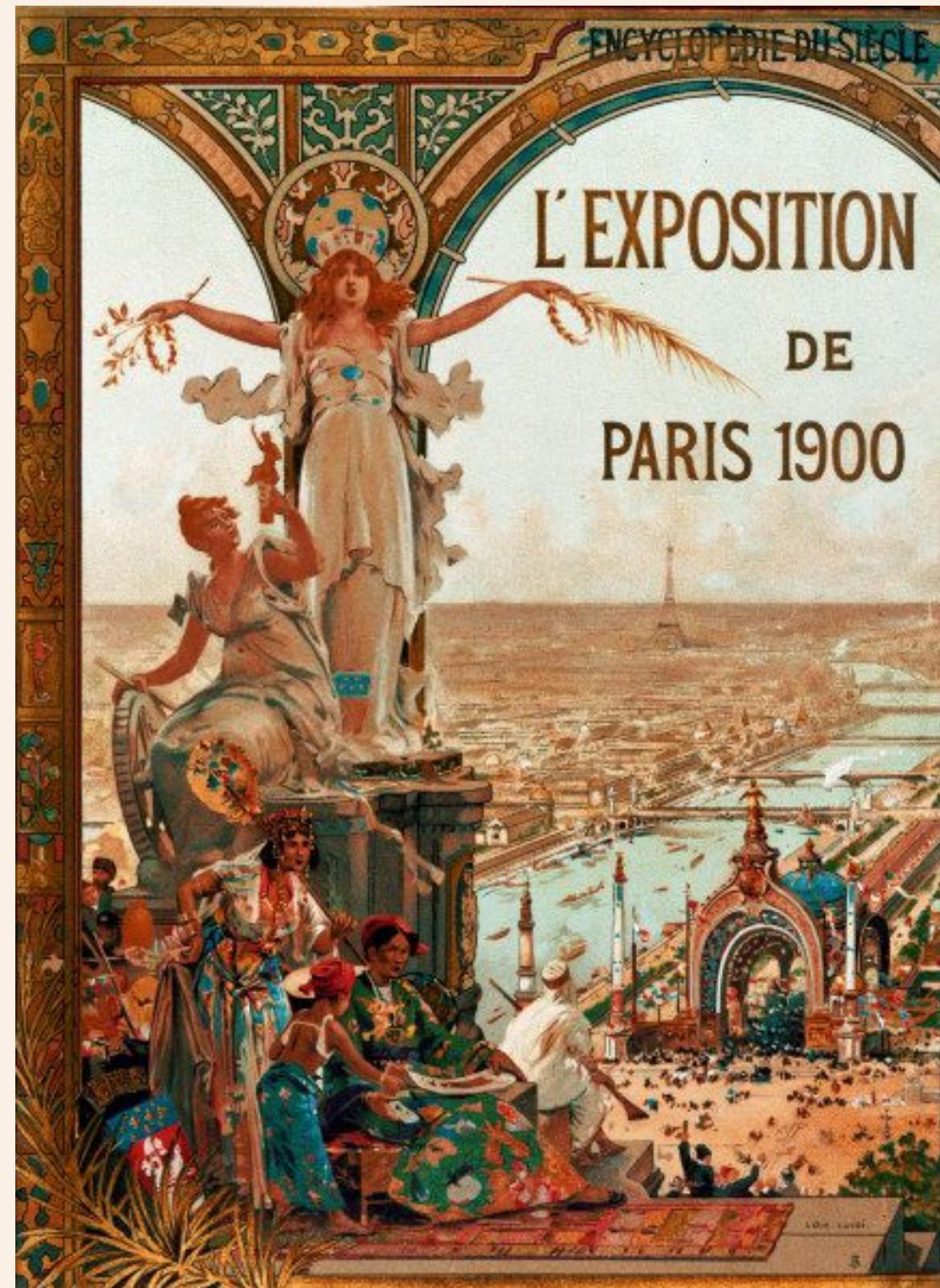
■ 2.8 - 2.4 MILLION

■ 0.8 - 0.4 MILLION

■ 2.4 - 2.0 MILLION

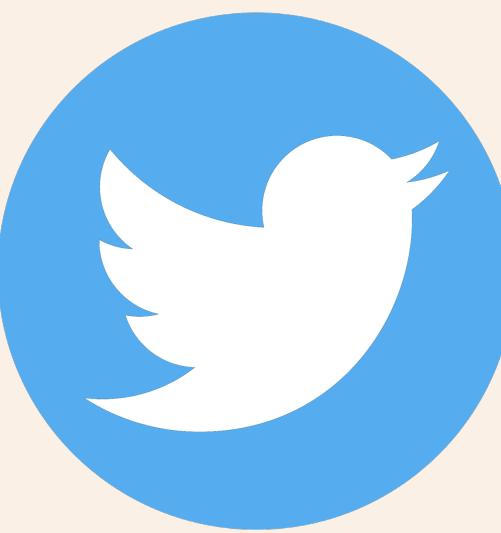
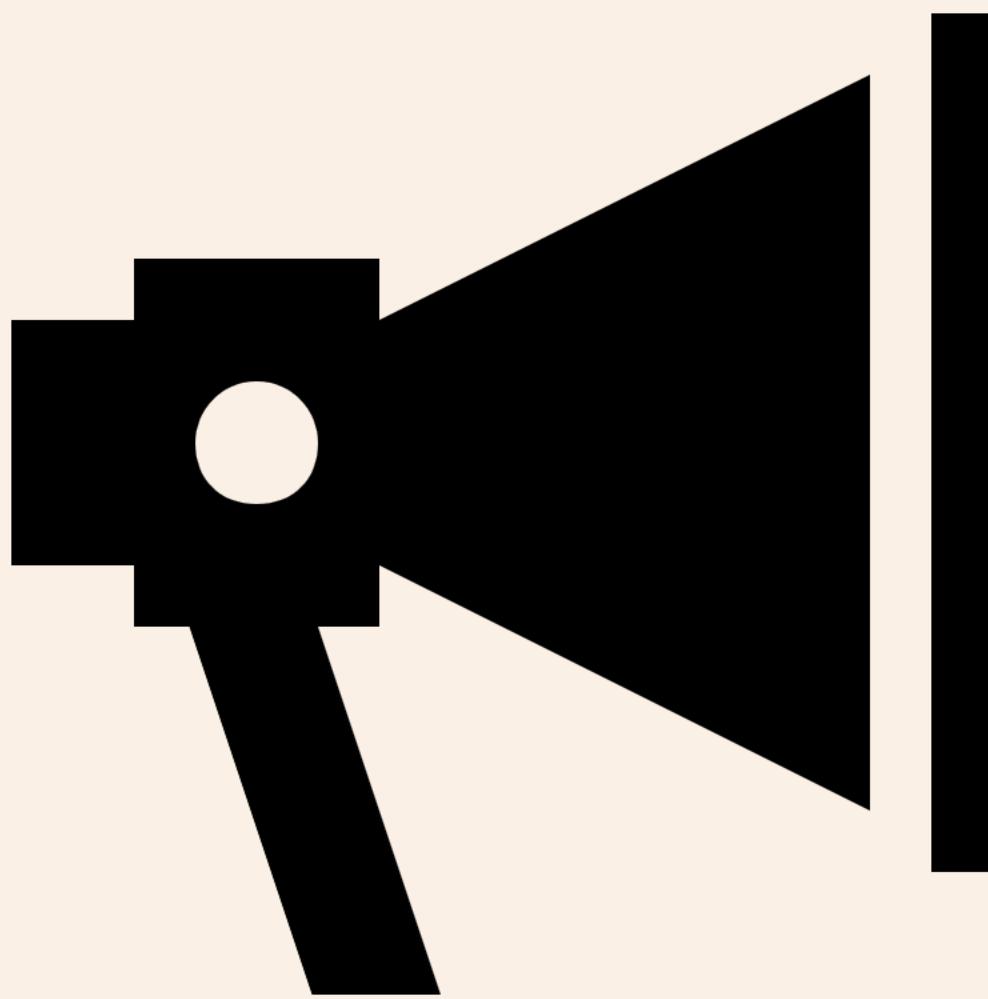
■ UNDER 0.4 MILLION

# Paris 1900



# Now: The Modern Megaphone

Your Message

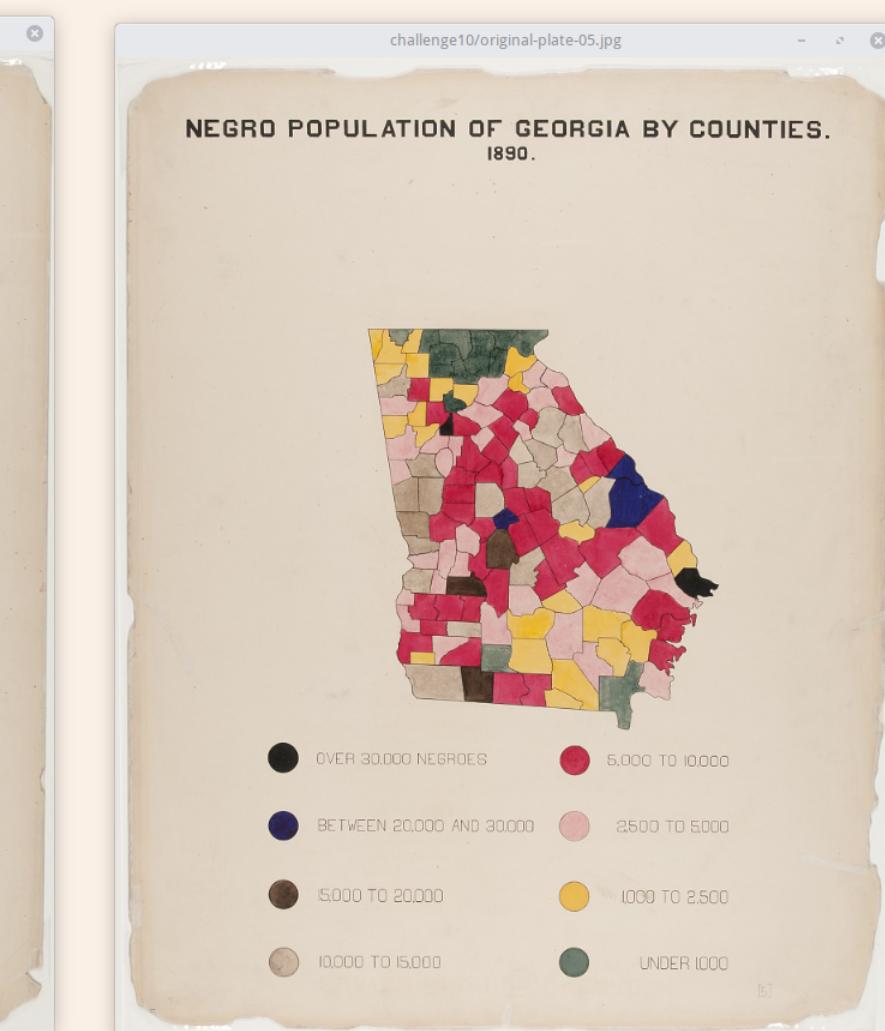
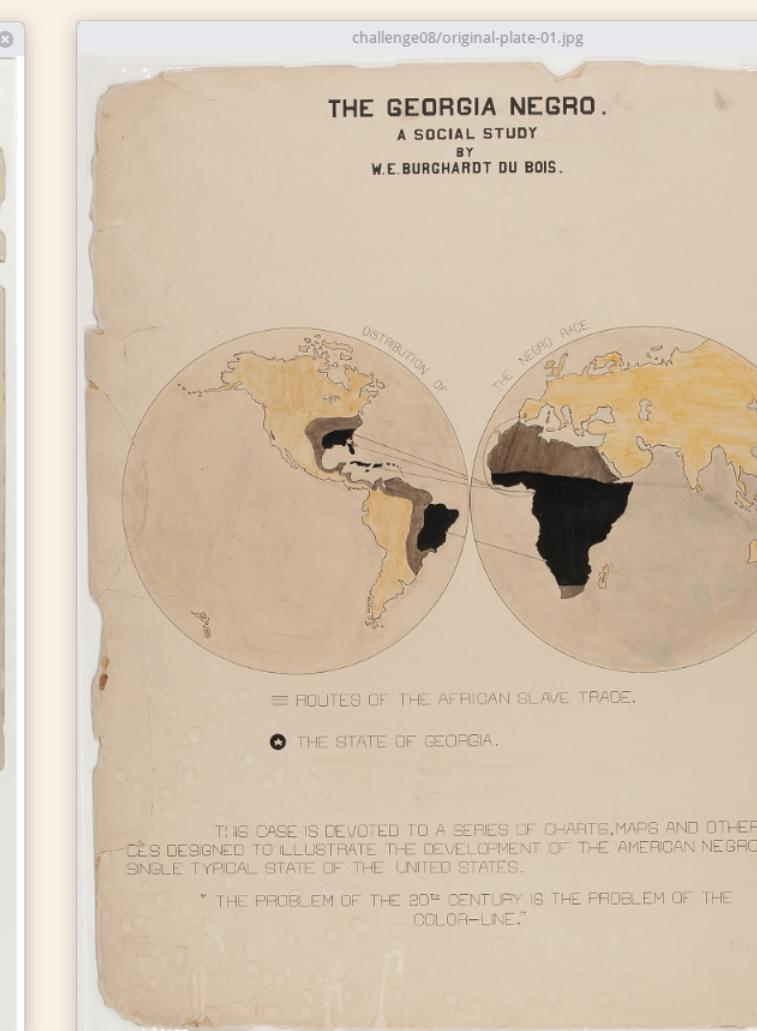
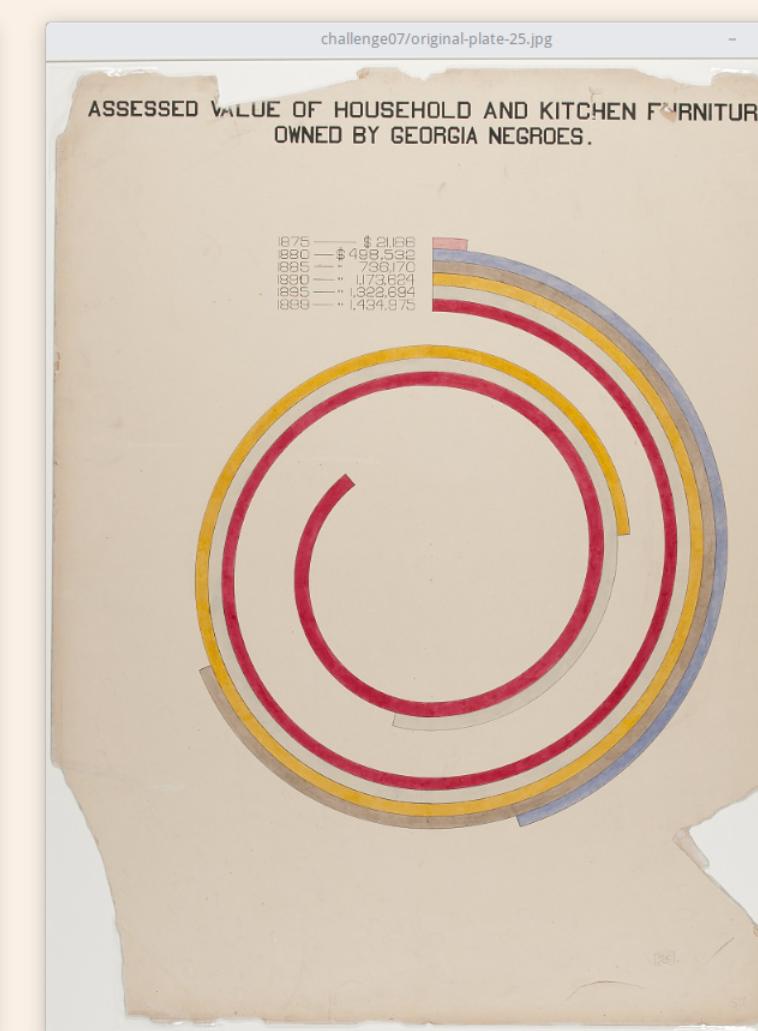
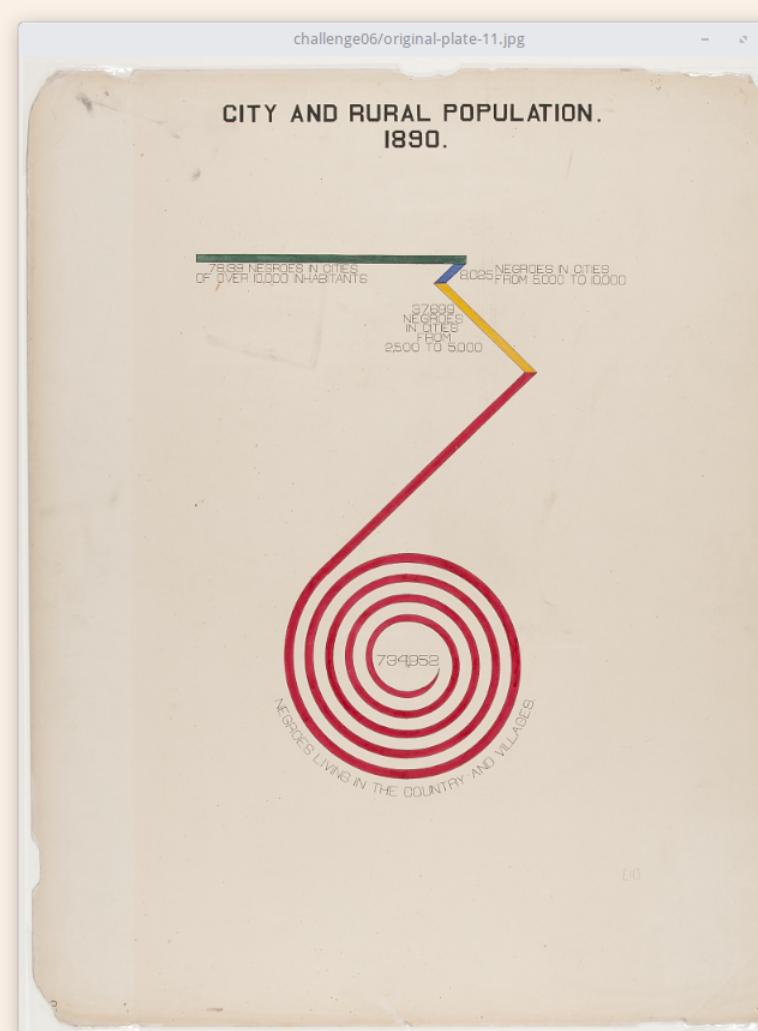
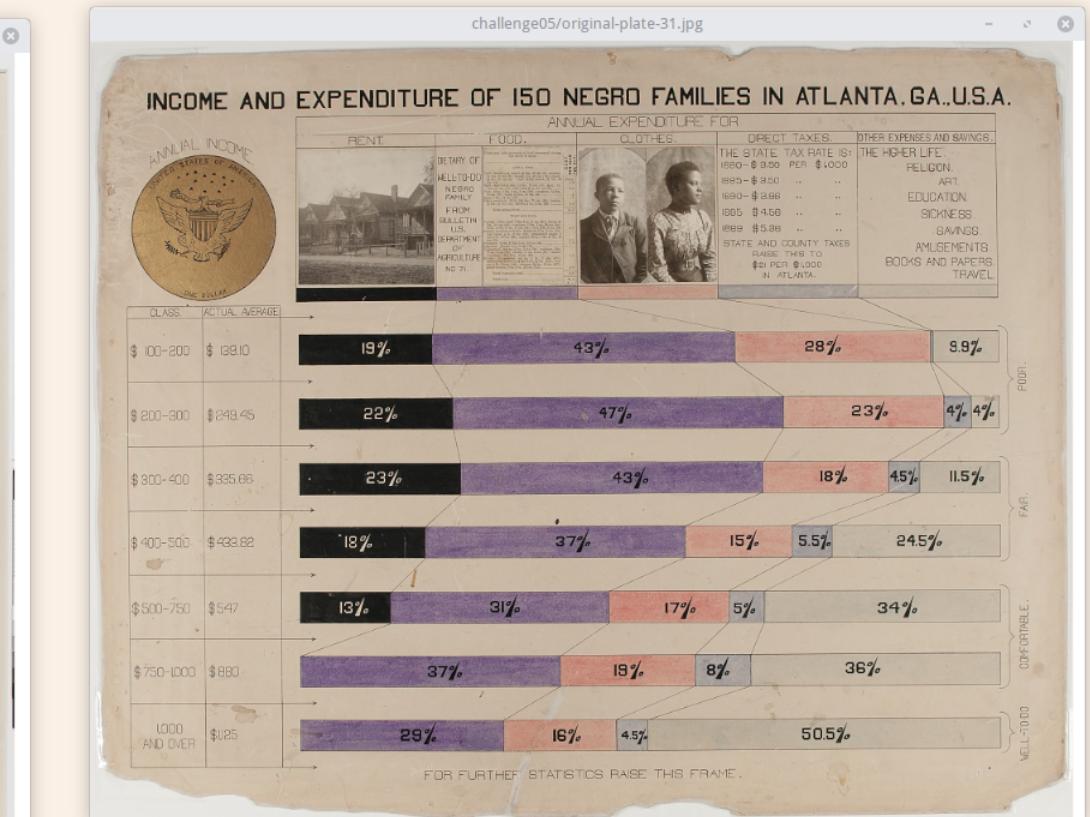
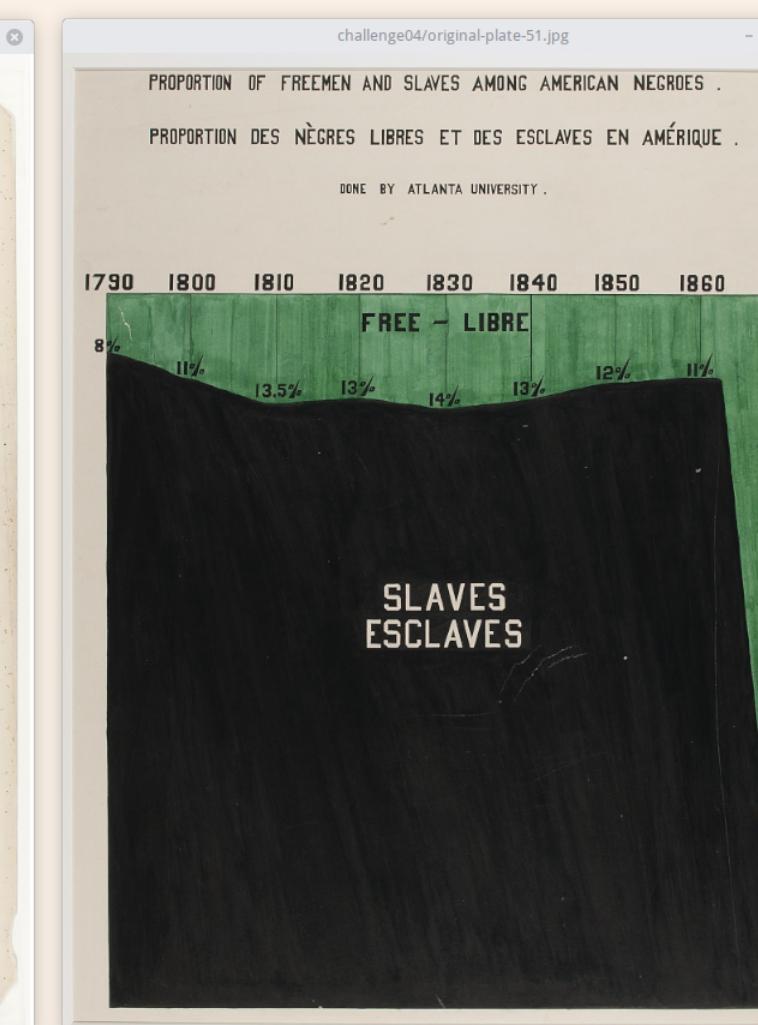
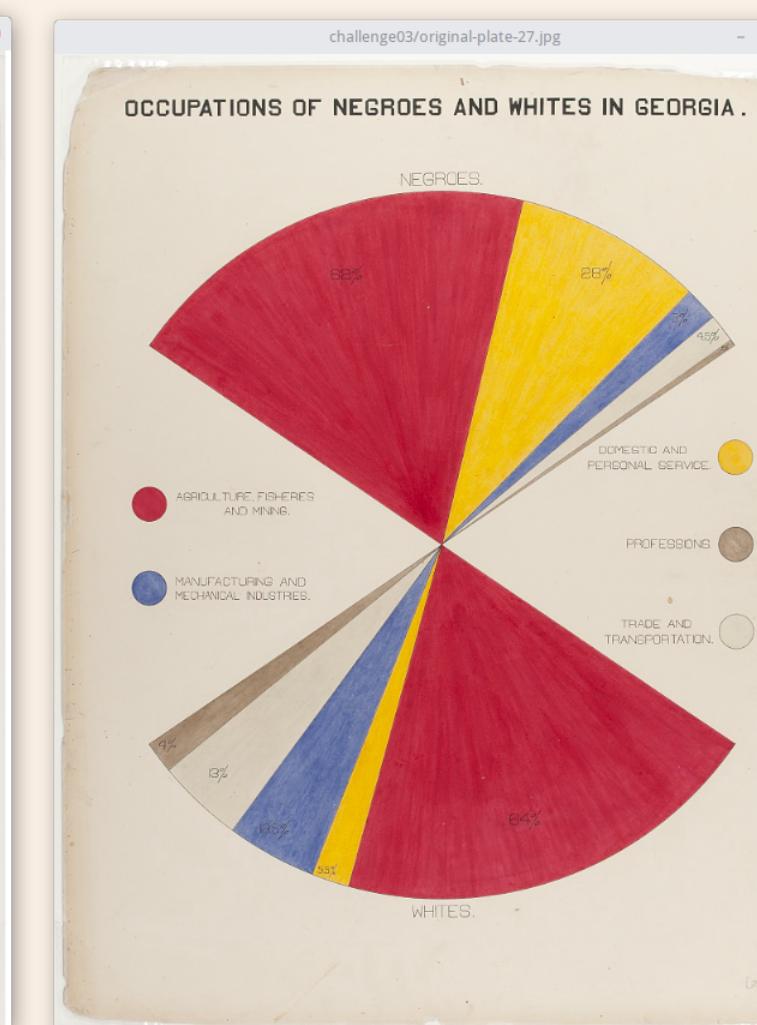
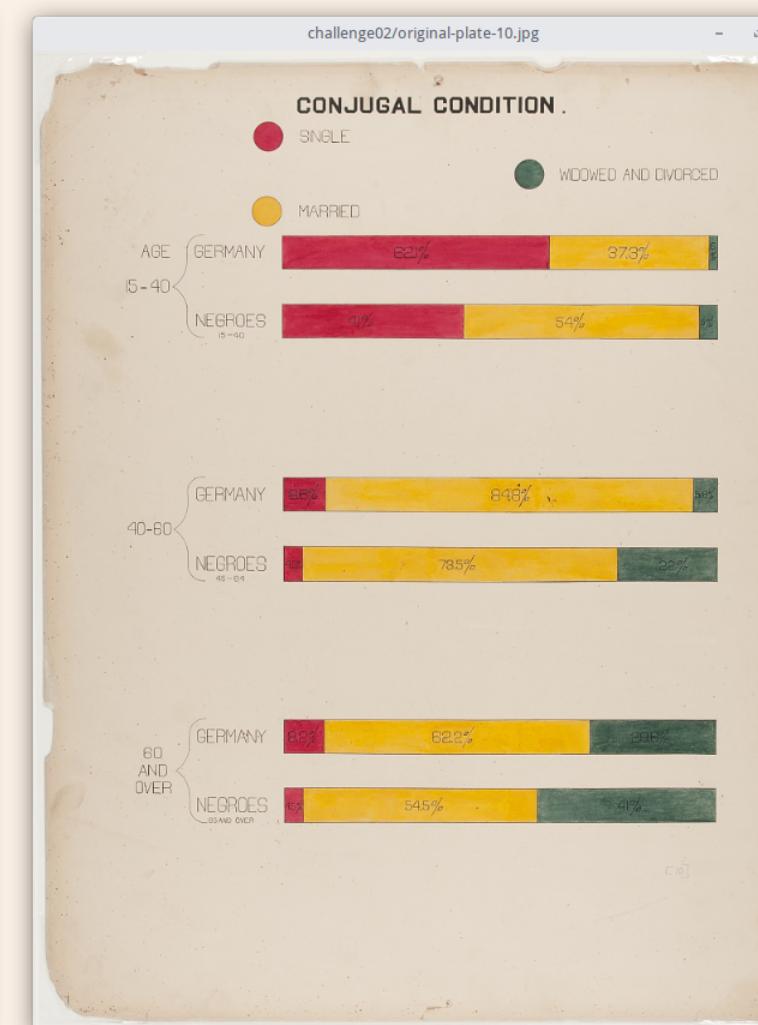
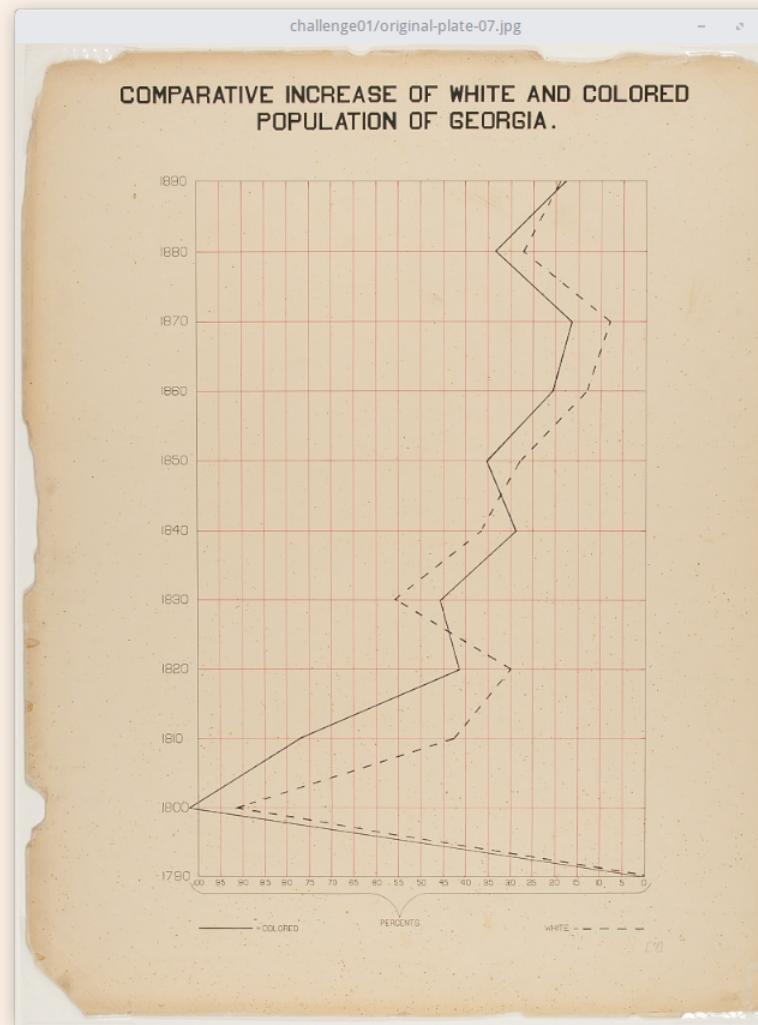


You Tube

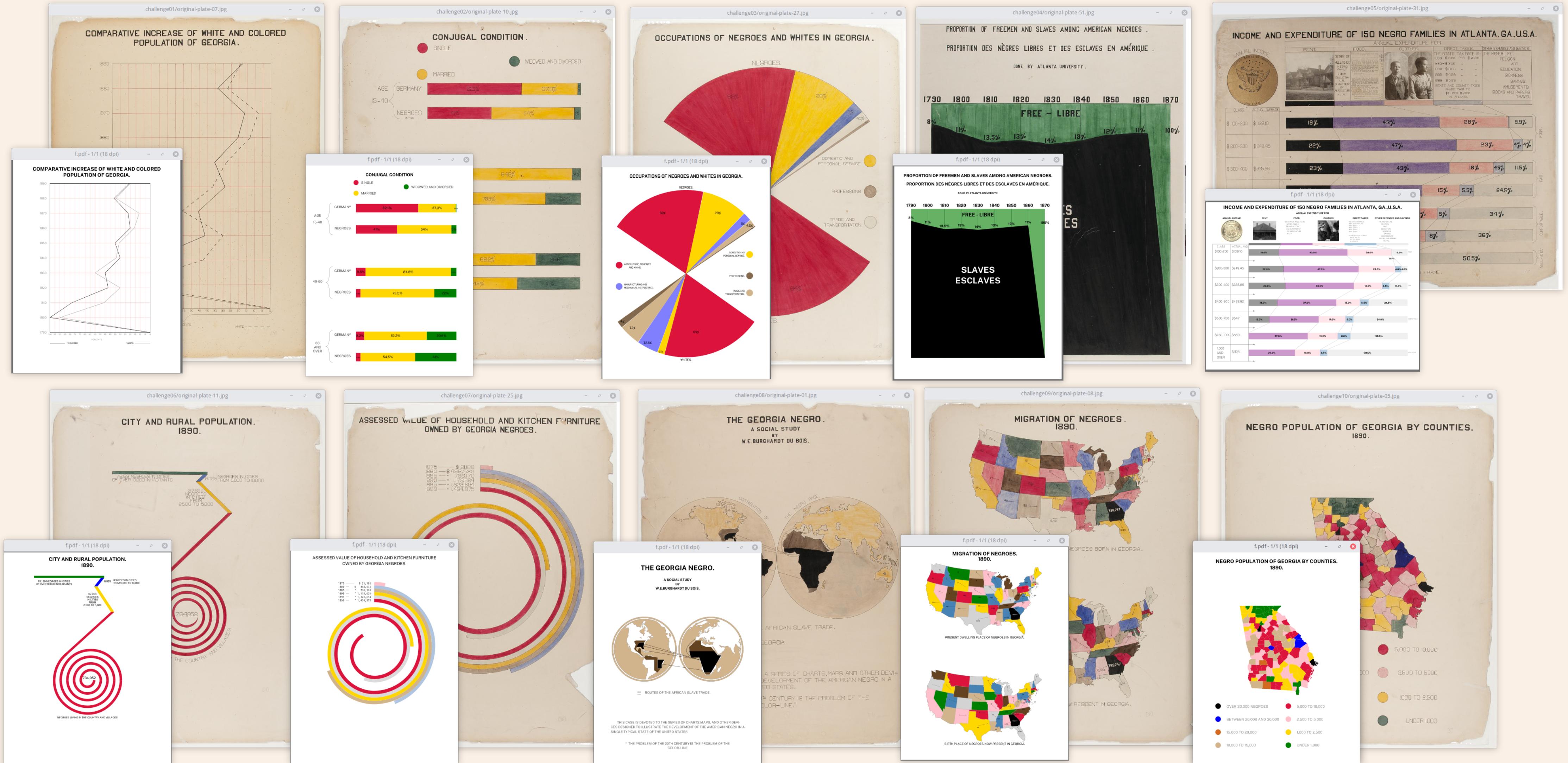


zoom

# #DuboisChallenge



# #DuboisChallenge



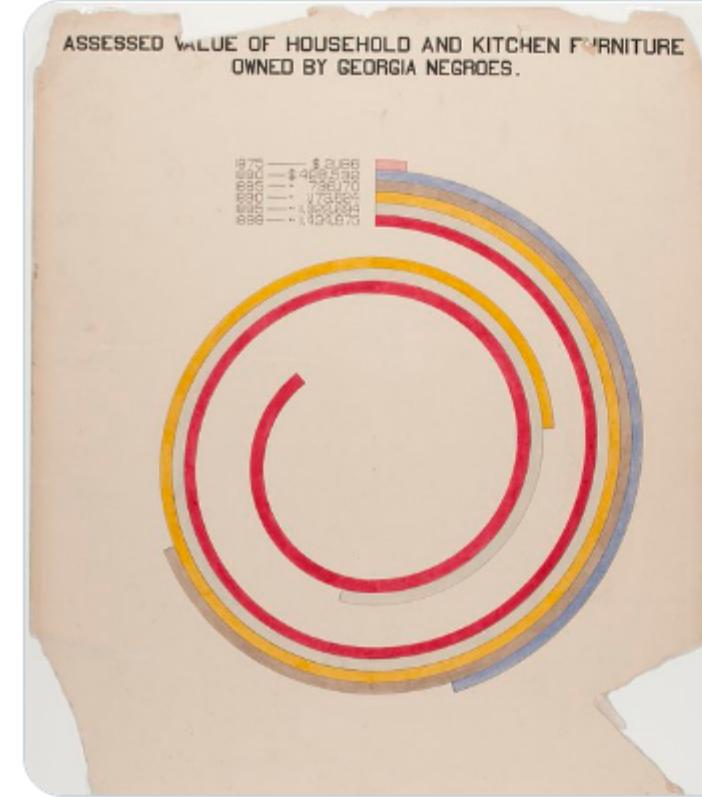
# #DuBoisChallenge



Ijeamaka A  
@ijeamaka\_a

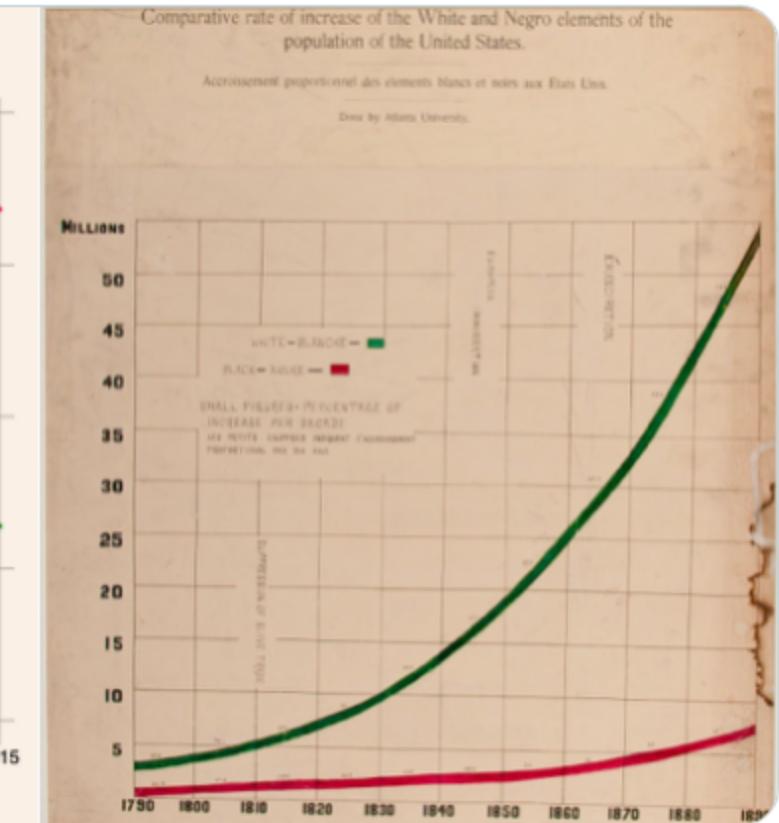
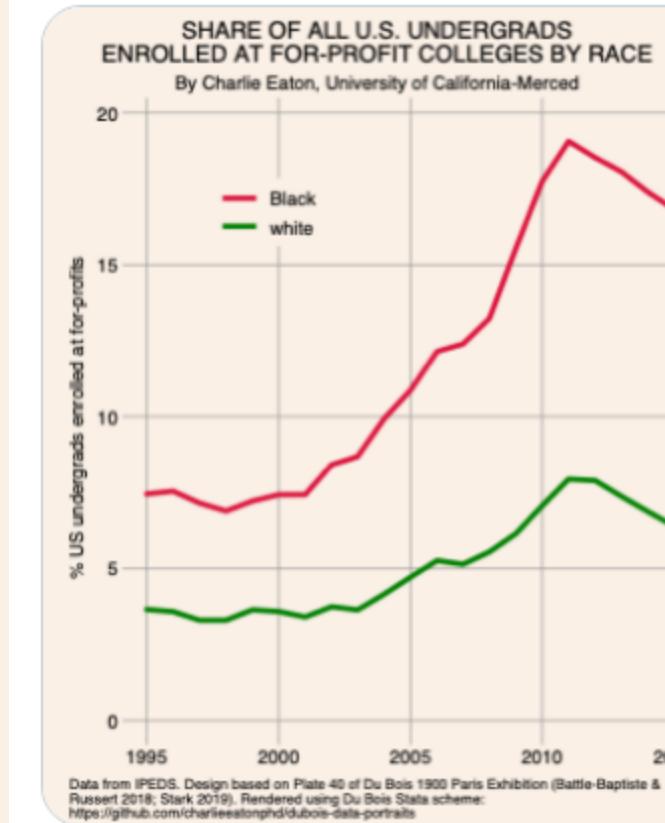
#TidyTuesday and #DuBoisChallenge

I decided to recreate challenge 07 using only coord\_polar. It is not a perfect recreation, but I am happy with it (mostly because I didn't have to use my very rusty trigonometry knowledge).



Charlie Eaton  
@CharlieEatonPhD

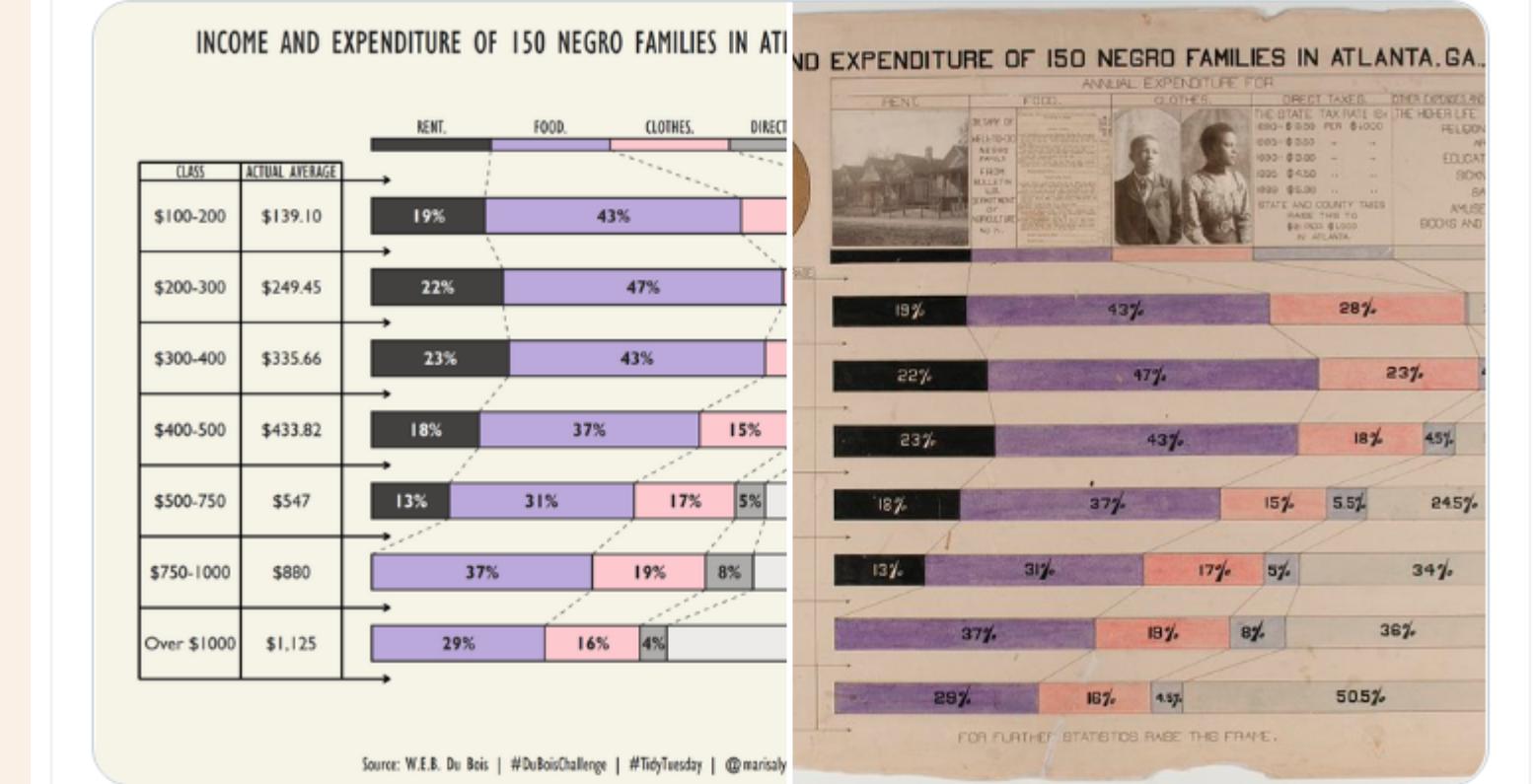
I'm thrilled that any @Stata user can now add the Du Bois graphing scheme to their machine using the \*ssc install dubois\* command. After installing, check \*help dubois\* for tips to use the scheme for the #DuBoisChallenge or modern replications like this one!



Marisa Henry  
@marisalyn

had lots of fun learning more about W.E.B DuBois and attempting to recreate one of his figures for the #DuBoisChallenge and #TidyTuesday this week!

: [github.com/marisalyn/tidy...](https://github.com/marisalyn/tidy...)

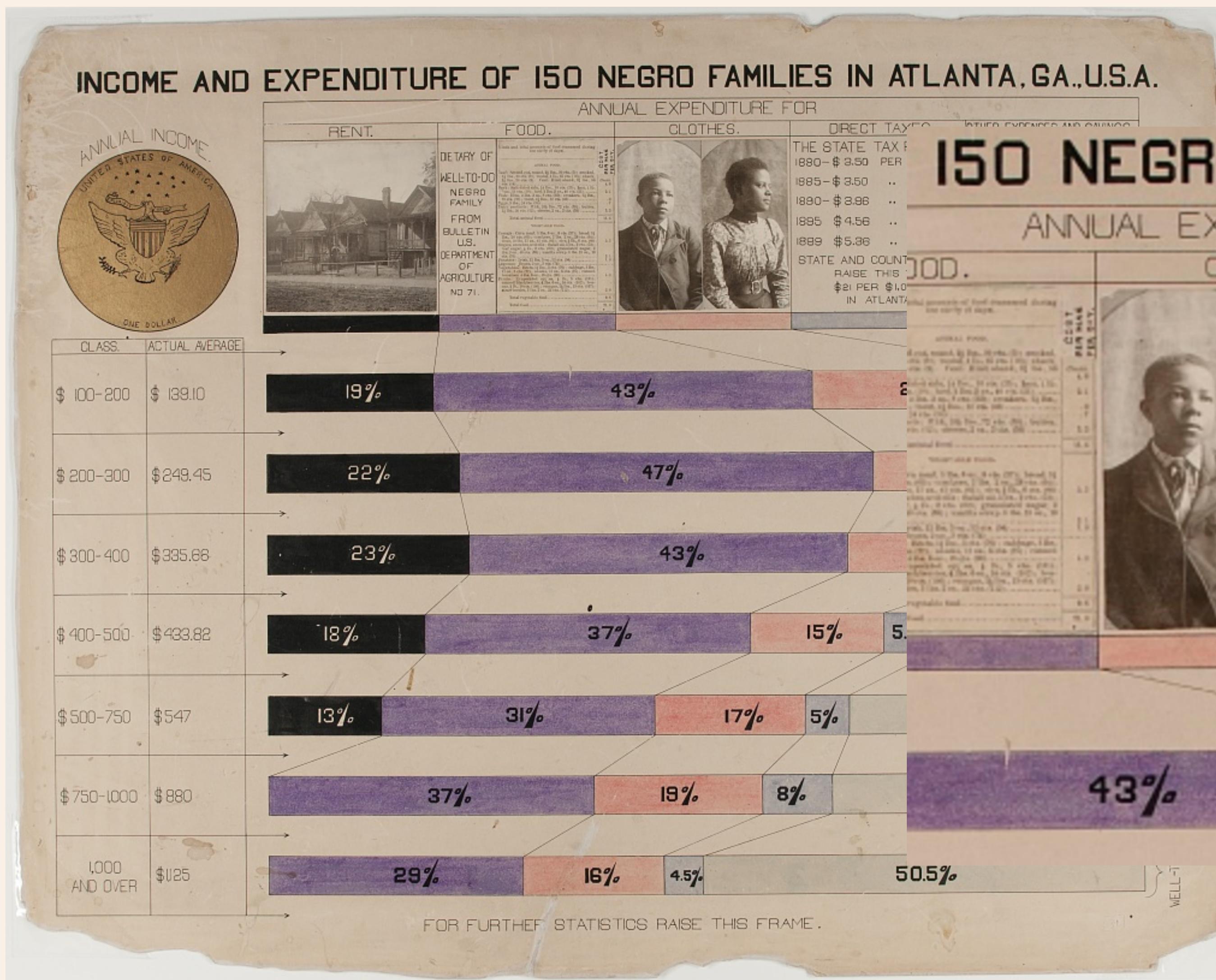


<https://github.com/ajstarks/dubois-data-portraits/tree/master/challenge>

# How do you humanize your visualization?



# Human elements in Plate 31



# Adrian Brandon

Seattle Raised, Brooklyn Based Artist  
and Author of The Stolen Series



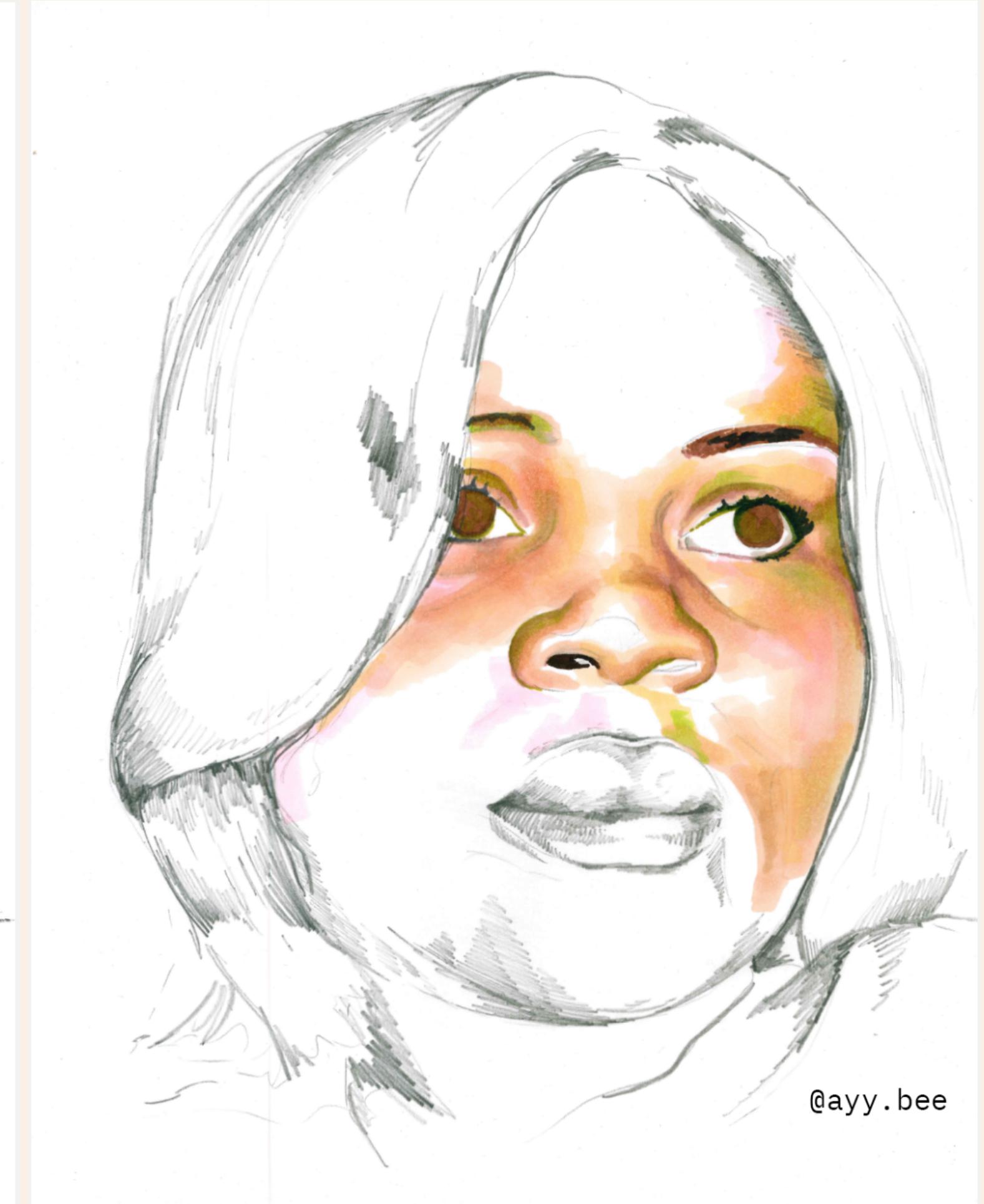
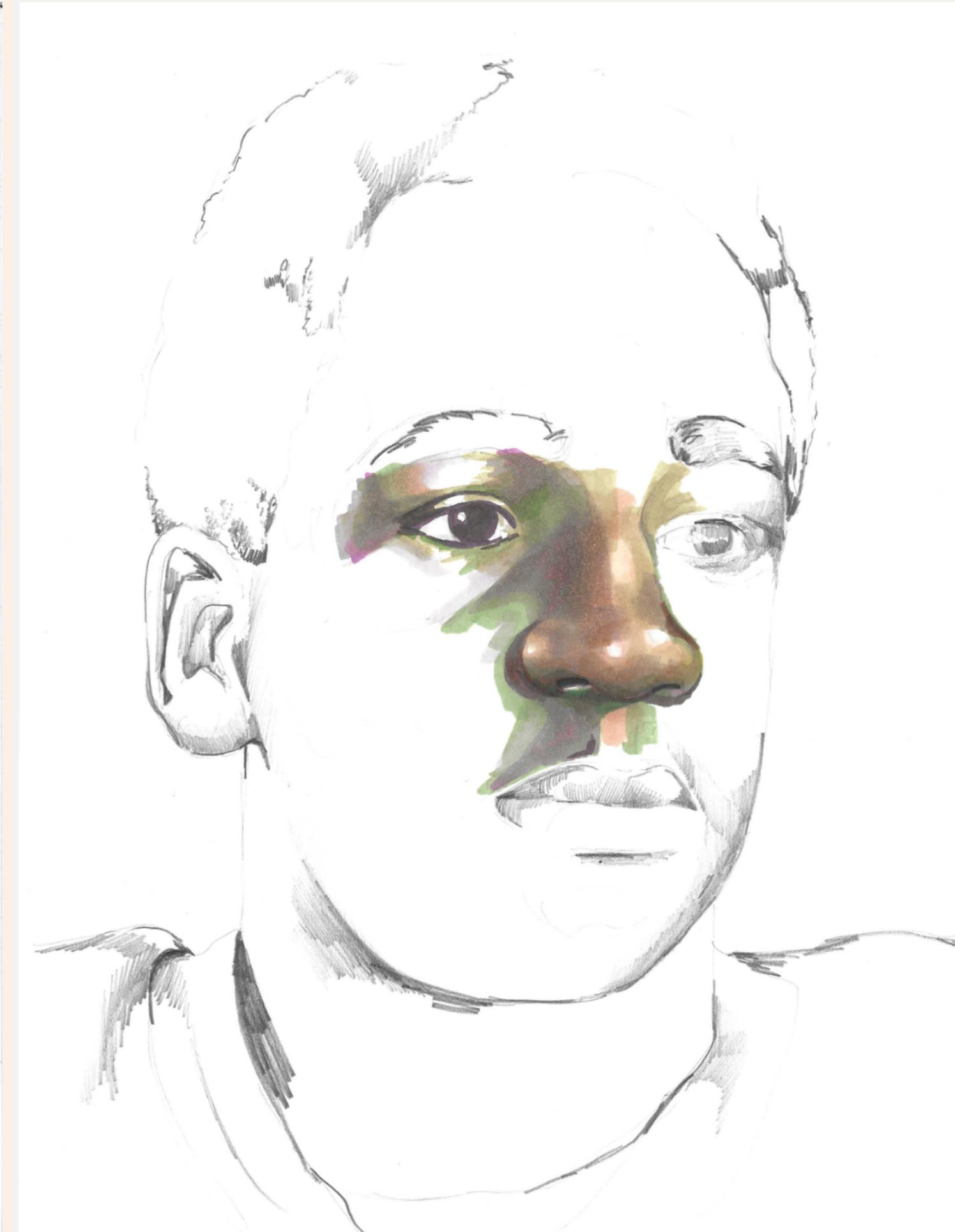
"Art is a universal language that transcends all walks of life, so I felt like it would be a good way to express the pain that I was feeling inside"

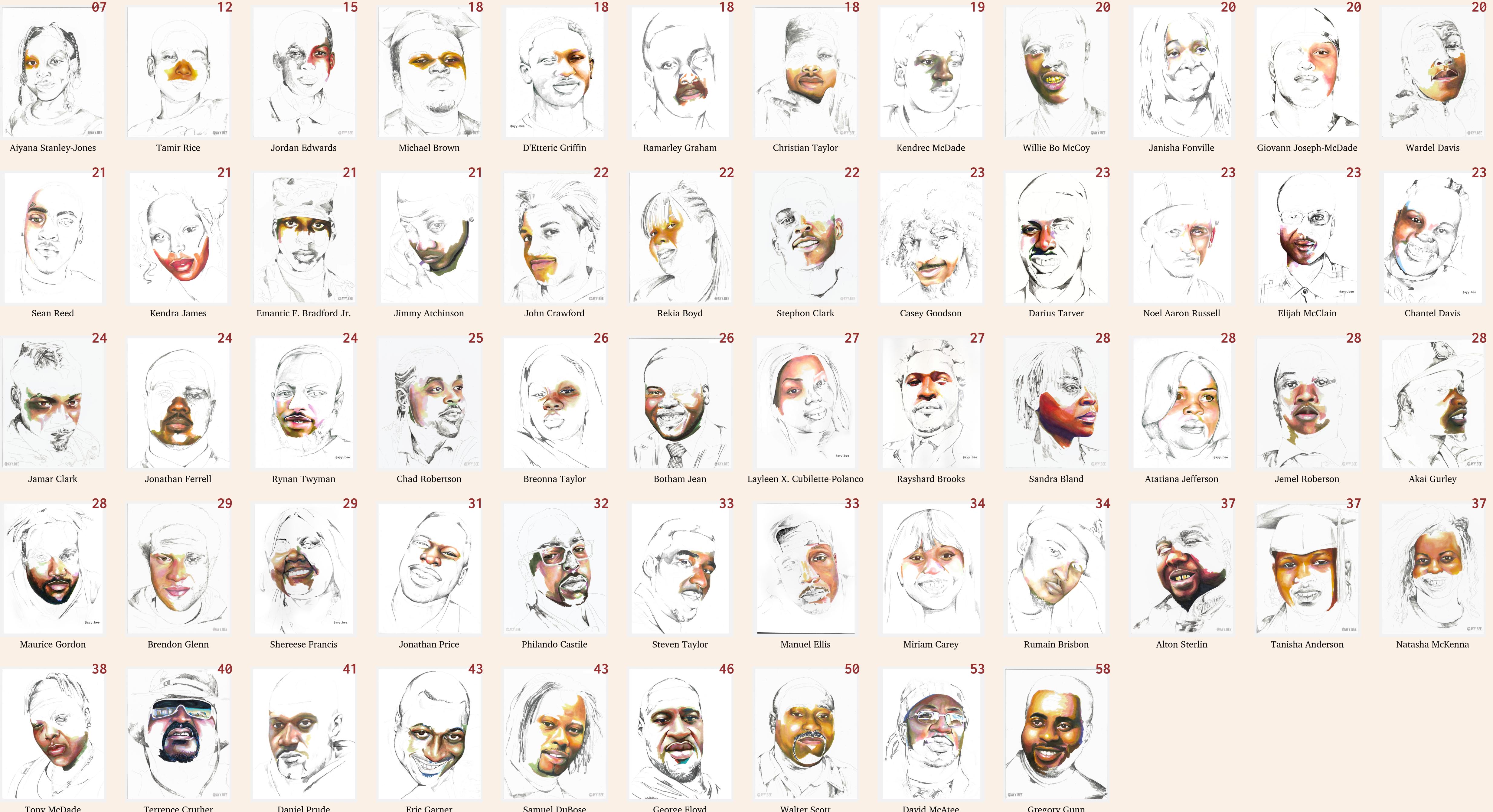
Adrian was emotional and angry with the violence against Black people and wanted to make an impact. He sought to have a voice in the conversation and chose to bring more attention to this issue through his art.

The Stolen Series is dedicated to the many Black people that were robbed of their lives at the hands of the police. Adrian uses time to define how long each portrait is colored in. 1 year of life = 1 minute of color.

The viewer is confronted with the empty space left in these lives, stories that will never be told, space that can never be filled.

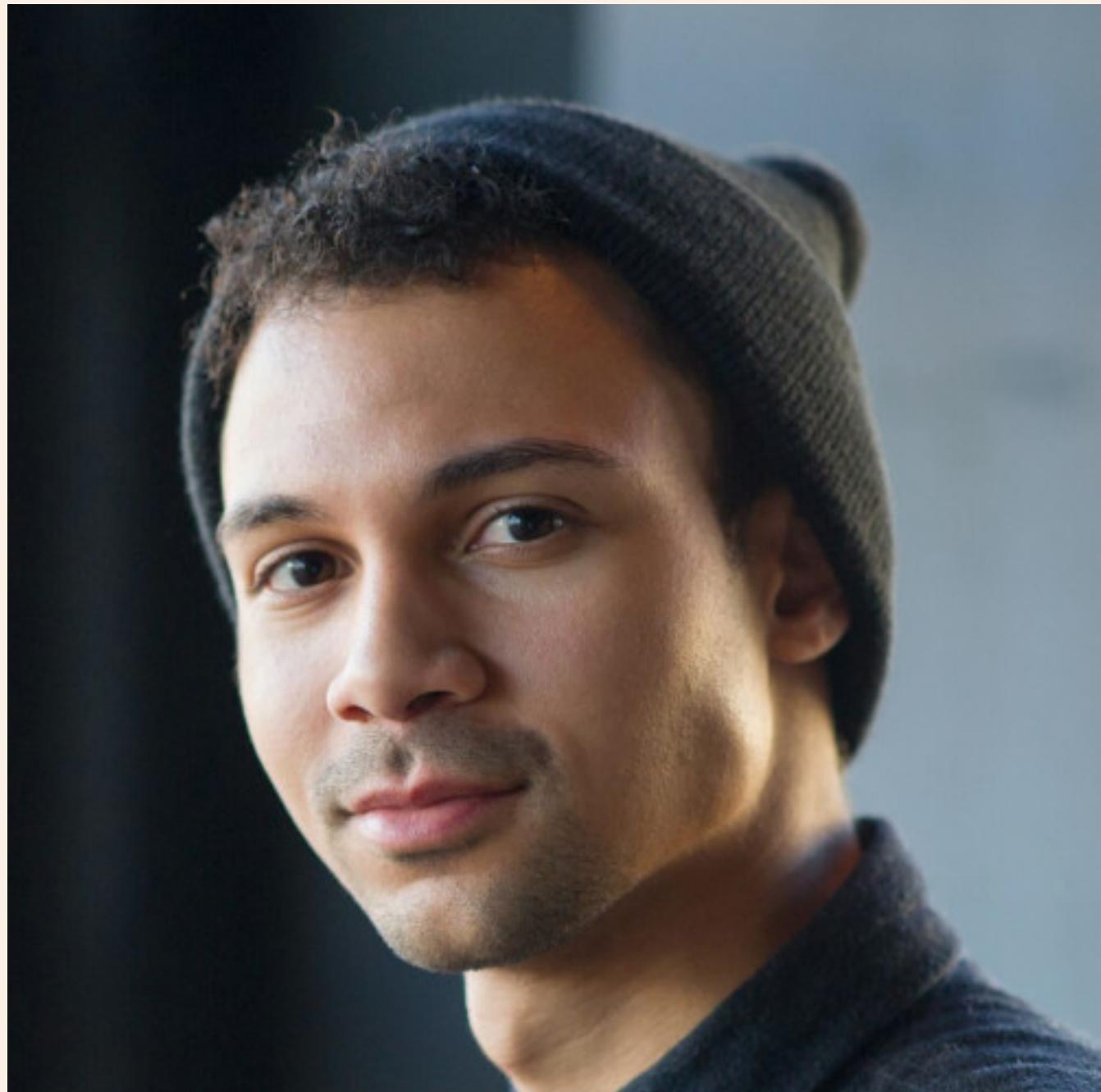
# Stolen Series: 1 Year = 1 Minute Of Color





# Sam Sinyangwe

Data scientist, activist and  
co-founder of Campaign Zero

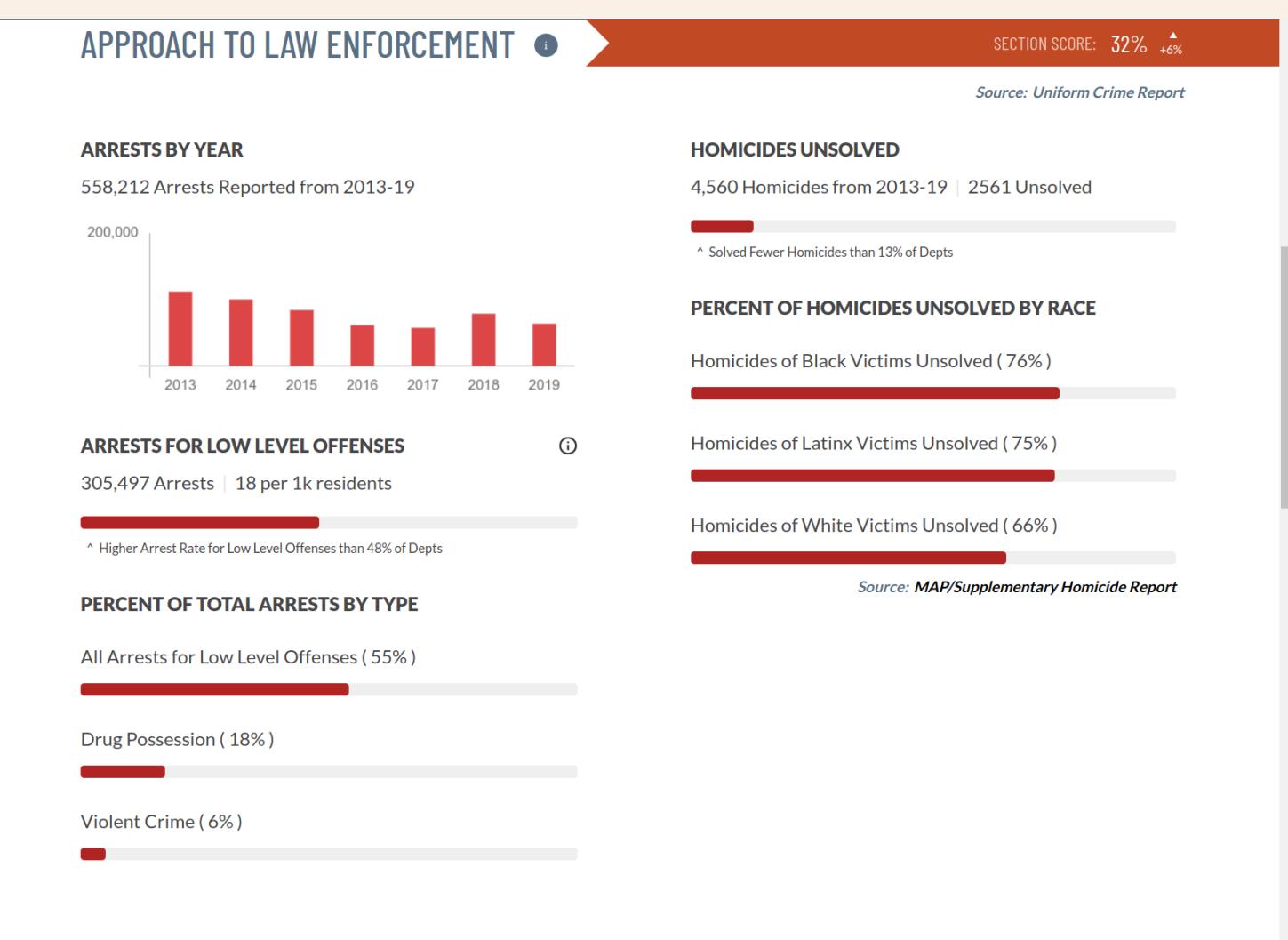
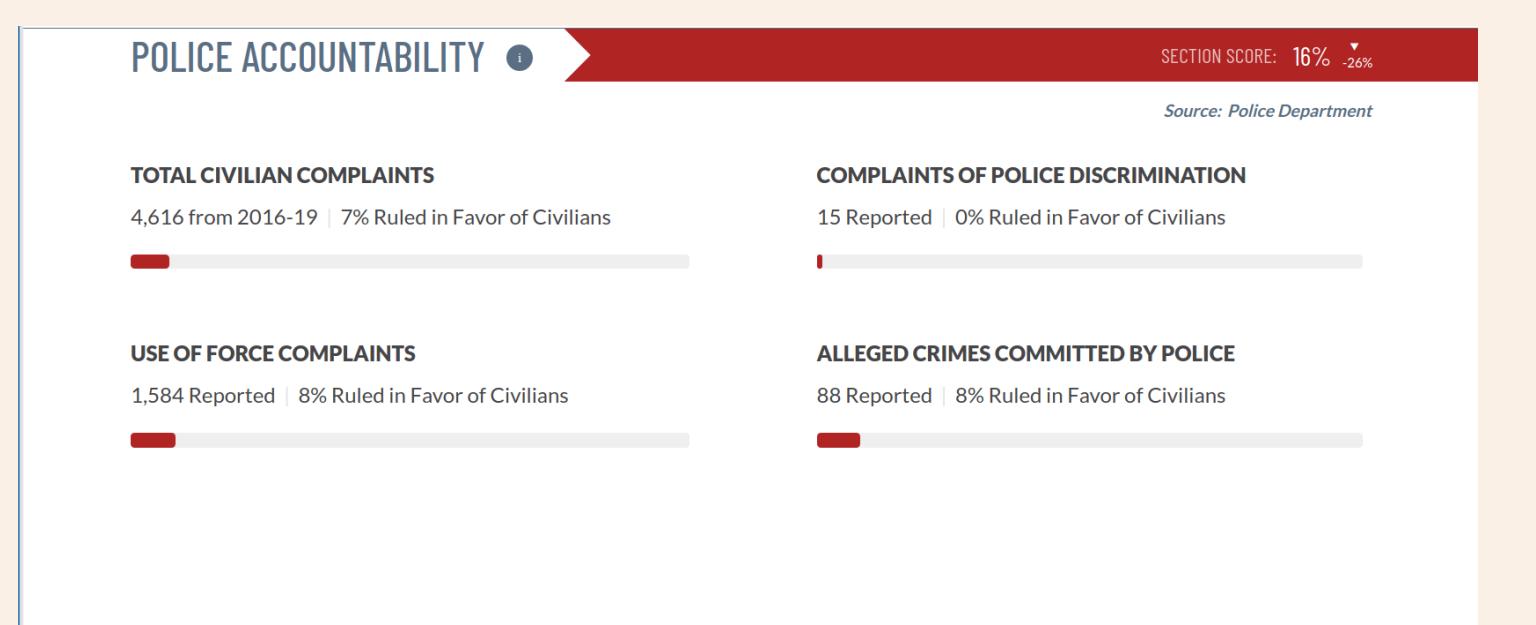
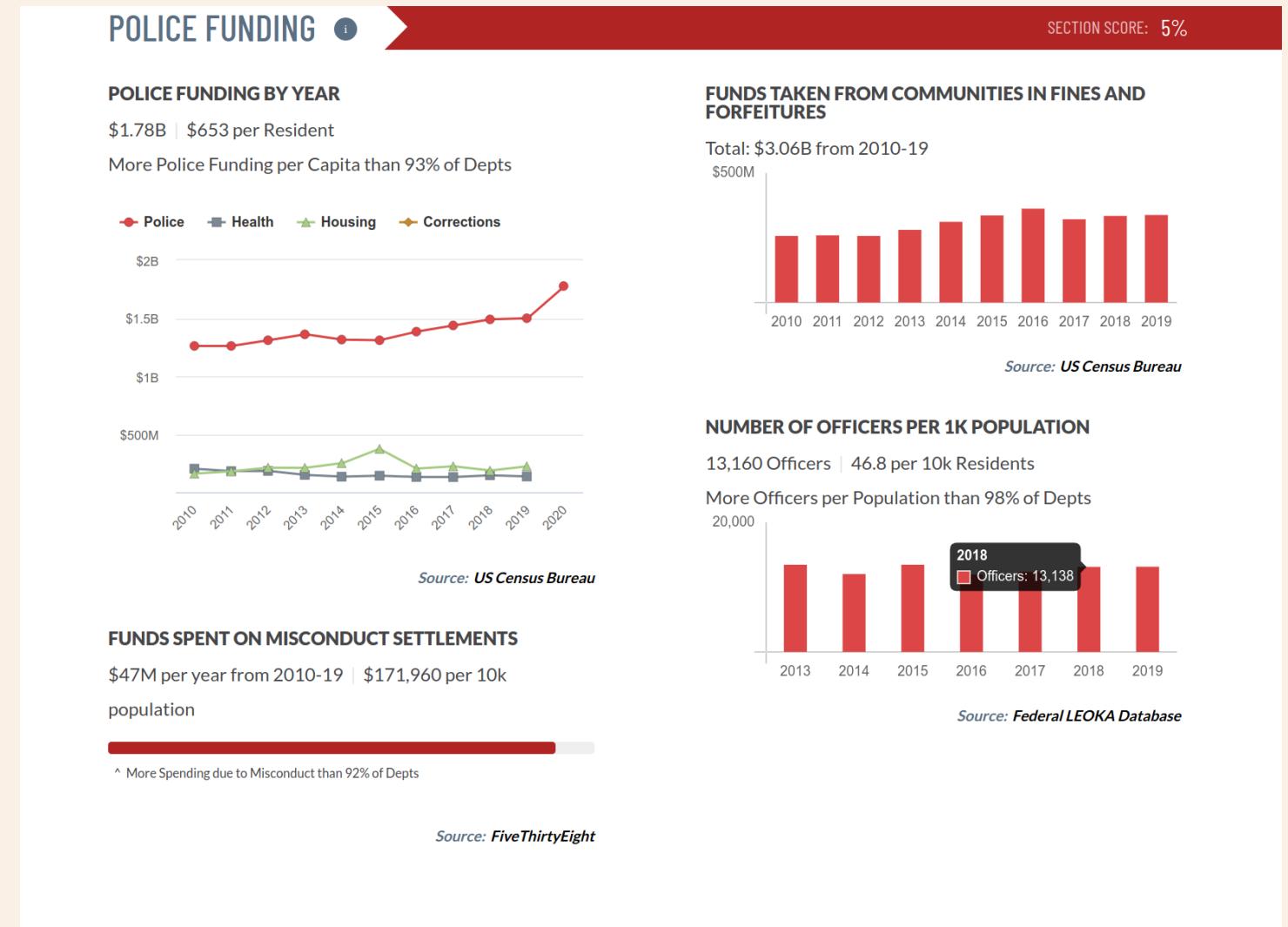
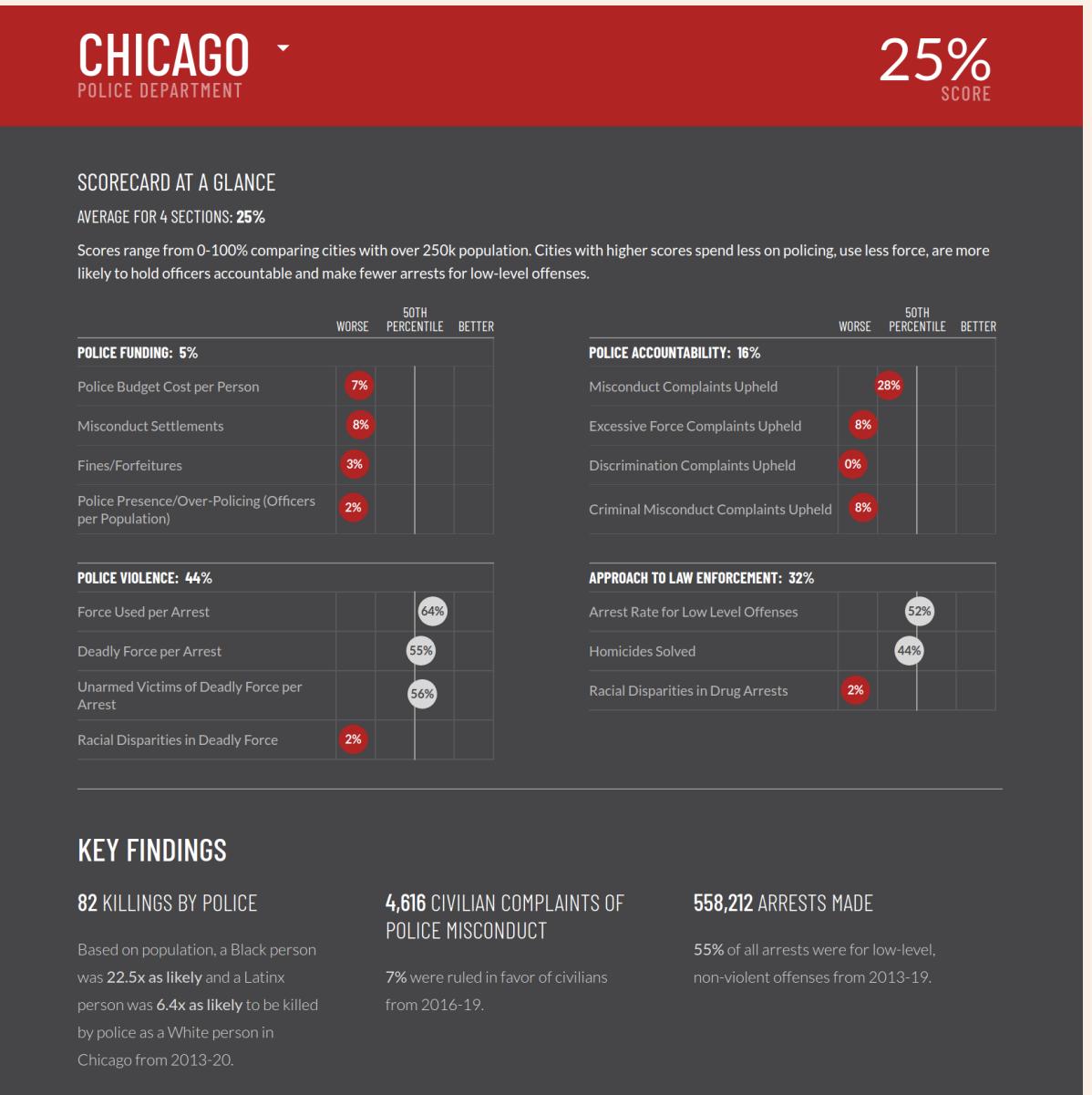
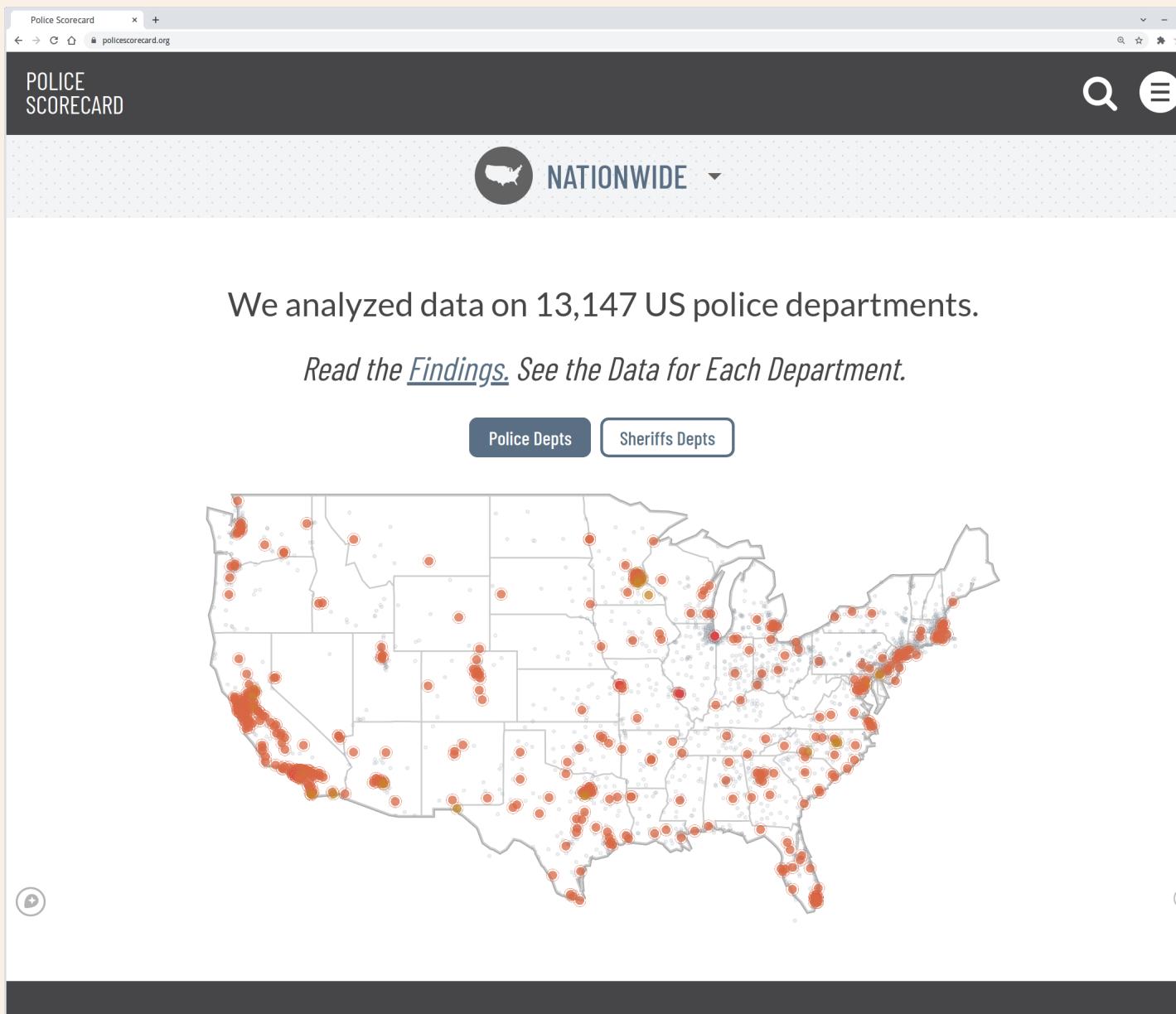


Sam is committed to fighting for policies and legislation that hold police departments accountable, and believes that using data is integral to ensuring that the proposed solutions are effective.

The deaths of Trayvon Martin and Mike Brown prompted him to gradually become conscious of the need to address police violence and violence in the criminal justice system.

“I learned early on in my journey that we don't need to wait for permission to take action.”

# Police Scorecard



# Police Scoring Criteria

- Avoiding the use of force to the greatest extent possible
- Implement non-biased and non-discriminatory strategies
- Minimize the financial burden on communities
- Prioritize addressing serious threats to public safety
- Provide some form of accountability
- Remain thorough and trustworthy

# A Tale of Two Cities (10.2 miles apart)

70%

Blain, MN

- No reported police killings 2013-20
- 12 complaints, 83% ruled in favor of civilians
- 12,836 arrests, 51% low-level non-violent

24%

Robbinsdale, MN

- One reported police killing 2013-20
- 6 complaints, 0% ruled in favor of civilians
- 4,075 arrests, 79% low-level non-violent



# Modern Data and the Human Element

What patterns do you see in the Police Scorecard?

What are some other modern data sets you would use?

What are some other methods to humanize your visualizations?

Authorship, after all, is  
not only what is created  
but also what is selected.

Teju Cole