

# REPRESENTING EYE COLOR

## EYE COLOR GUIDE FOR PROSTHETIC EYES

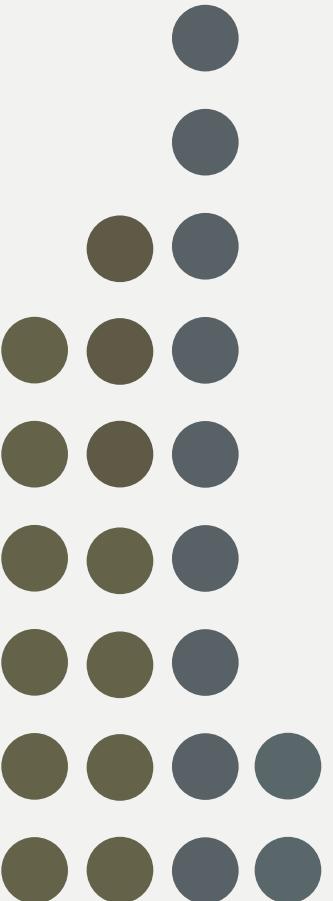
THIS OBJECT FROM THE SMITHSONIAN'S NATIONAL MUSEUM OF AMERICAN HISTORY WAS MADE IN 1943 AT AN ARMY BASE CALLED CAMP CROWDER, LOCATED IN NEWTON COUNTY IN MISSOURI DURING WWII. IT WAS USED BY OCULARISTS (THOSE WHO DESIGN PROSTHETIC EYES), AND EYE DOCTORS AS A COLOR GUIDE TO MATCH A PROSTHETIC EYE WHEN A SOLDIER OR PATIENT LOST AN EYE. WHEN A PROSTHETIC EYE WAS CREATED THIS TOOL WAS USED AS A WAY TO MATCH THE EYE COLOR. EACH OF THE 25 IRISES ON THE TOOL WOULD BE LOOKED AT AS A POTENTIAL MATCH WHEN COMPARING IT TO THE REMAINING EYE OF THE PATIENT.

THIS GRAPHIC WAS CREATED BY REVERSE ENGINEERING THE COLOR VALUES OF EACH OF THE 25 IRISES IN THE COLOR GUIDE OBJECT, AND COMPARING EACH TO WORLD EYE COLOR PERCENTAGES TO BETTER UNDERSTAND WHERE IT FALLS ON THE SPECTRUM FROM DARK BROWN TO LIGHT BLUE. THE GRADIENT BELOW WAS ALSO REVERSED ENGINEERED USING THE MARTIN-SCHULTZ SCALE, WHICH IS A TOOL USED IN PHYSICAL ANTHROPOLOGY TO MEASURE THE EYE COLOR OF INDIVIDUALS ACROSS DIFFERENT COUNTRIES.



EACH CIRCLE REPRESENTS ONE OF THE 25 ARTIFICIAL IRISES IN THE MUSEUM OBJECT AND ITS COLOR VALUE.

96% OF THE COLOR VALUES OF EACH IRIS IN THE OBJECT FALL WITHIN 16% OF THE LIGHTER END OF THE SPECTRUM. ONLY ONE OUTLIER AT THE FAR LEFT OF THE PAGE.



\* % OF THE WORLD POPULATION FOR EACH EYE COLOR

79%  
BROWN

5%  
AMBER

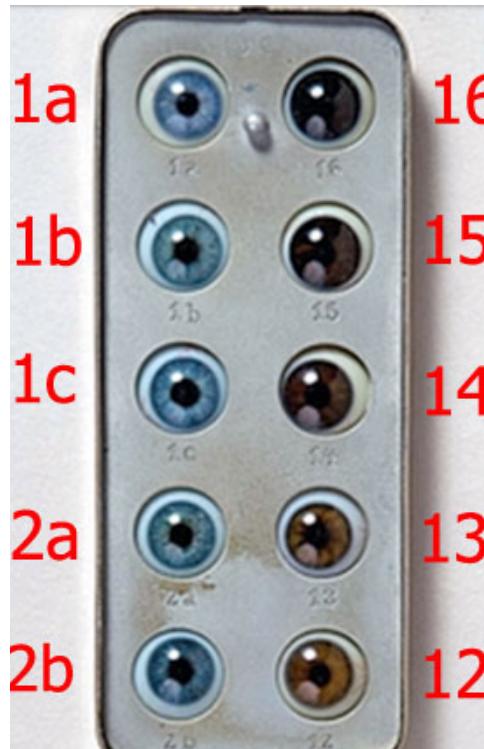
5%  
HAZEL

2%  
GREEN

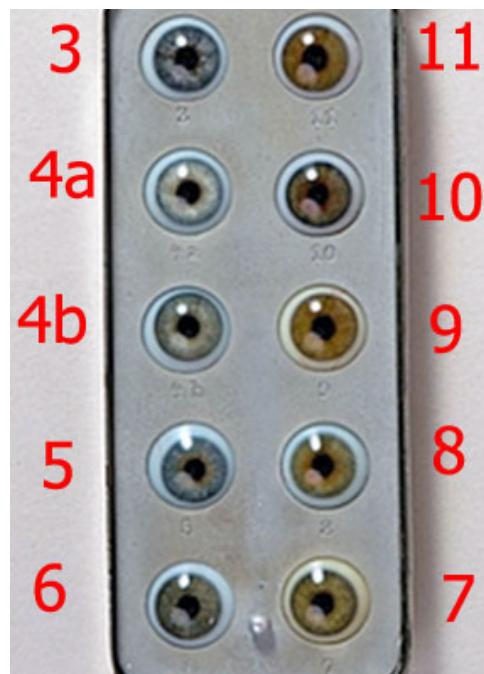
1%  
GRAY

8%  
BLUE

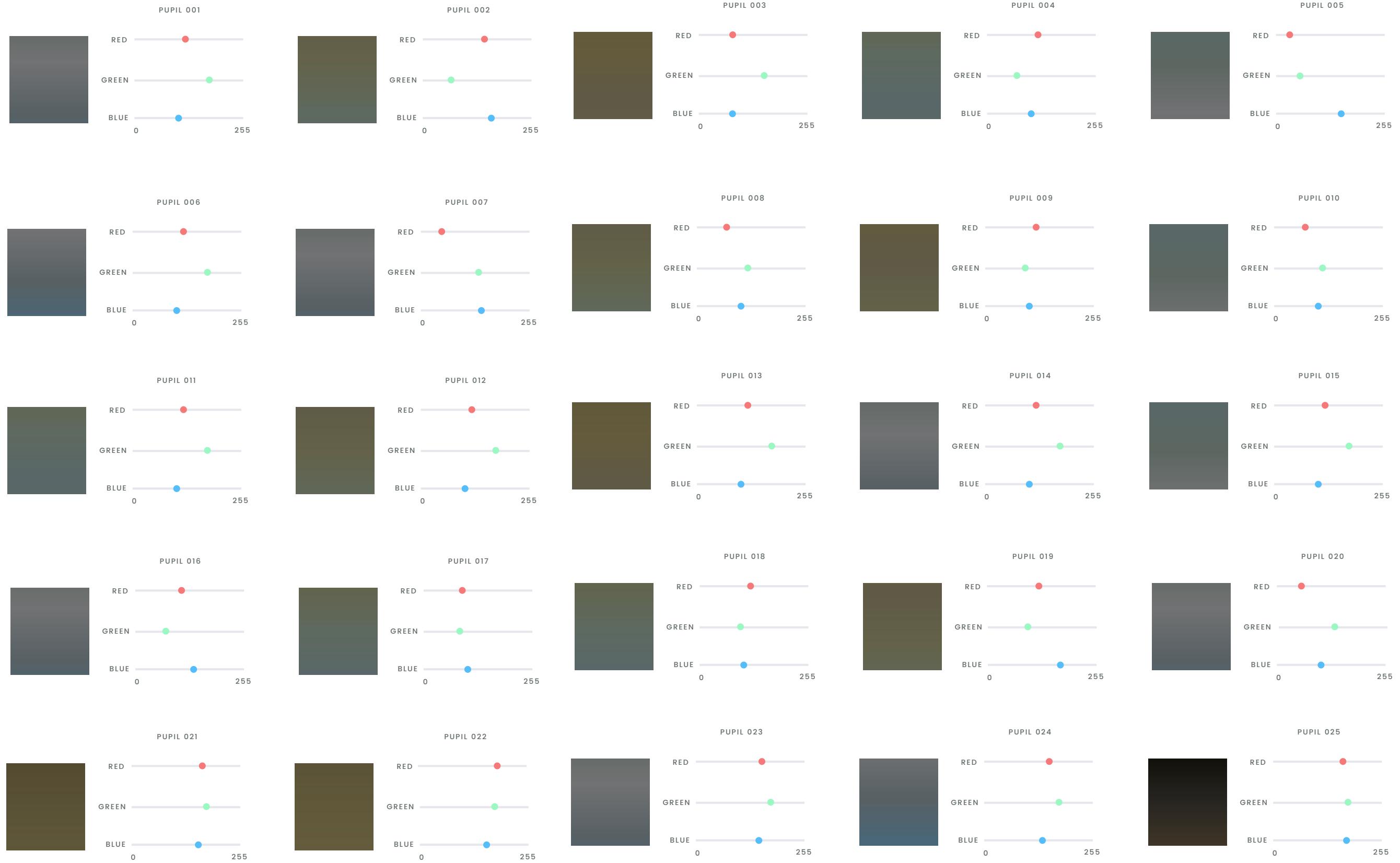
# MARTIN-SCHULTZ SCALE



THE MARTIN-SCHULTZ SCALE IS A STANDARD COLOR SCALE COMMONLY USED IN PHYSICAL ANTHROPOLOGY TO ESTABLISH MORE OR LESS PRECISELY THE EYE COLOR OF AN INDIVIDUAL; IT WAS CREATED BY THE ANTHROPOLOGISTS RUDOLF MARTIN AND BRUNO K SCHULTZ IN THE FIRST HALF OF THE 20TH CENTURY. THE SCALE CONSISTS OF 20 COLORS[1] (FROM LIGHT BLUE TO DARK BROWN-BLACK) THAT CORRESPOND TO THE DIFFERENT EYE COLORS OBSERVED IN NATURE DUE TO THE AMOUNT OF MELANIN IN THE IRIS (IN THIS CASE, THE LOWER THE NUMBER, THE LIGHTER THE EYE COLOR).



1-2 : BLUE IRIS (1A, 1B, 1C, 2A : LIGHT BLUE IRIS - 2B : DARKER BLUE IRIS)  
3 : BLUE-GRAY IRIS  
4 : GRAY IRIS (4A, 4B)  
5 : BLUE-GRAY IRIS WITH YELLOW/BROWN SPOTS  
6 : GRAY-GREEN IRIS WITH YELLOW/BROWN SPOTS  
7 : GREEN IRIS  
8 : GREEN IRIS WITH YELLOW/BROWN SPOTS  
9-10-11 : LIGHT-BROWN AND HAZEL IRIS  
12-13 : MEDIUM BROWN IRIS  
14-15-16 : DARK-BROWN AND BLACK IRIS



\*THIS IS A SKETCH AND NOT MEANT TO BE INDICATIVE OF THE TRUE RGB VALUES.

# EYE COLOR & COLLECTIONS

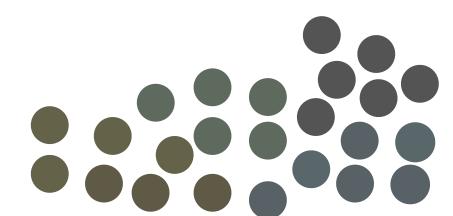
eye locket



## SUMMARY:

EXPLORING THE IDEA OF FUTURE ITERATIONS INCORPORATING EYE COLOR REPRESENTATION ACROSS VARIOUS COLLECTIONS AT THE SMITHSONIAN.

THE IDEA WOULD BE TO BETTER UNDERSTAND HOW EYE COLOR IS REPRESENTED HISTORICALLY THROUGHOUT OBJECTS WITHIN THE MUSEUM. THIS PARTICULAR SEARCH WOULD BRING UP JEWELRY LOCKETS AND EYE COLOR.



79%  
BROWN

5%  
AMBER

5%  
HAZEL

2%  
GREEN  
GRAY

8%  
BLUE

# EYE COLOR & COLLECTIONS

 native American portraits

## SUMMARY:

EXPLORING THE IDEA OF FUTURE ITERATIONS INCORPORATING EYE COLOR REPRESENTATION ACROSS VARIOUS COLLECTIONS AT THE SMITHSONIAN.

THE IDEA WOULD BE TO BETTER UNDERSTAND HOW EYE COLOR IS REPRESENTED HISTORICALLY THROUGHOUT OBJECTS WITHIN THE MUSEUM. THIS PARTICULAR SEARCH WOULD BRING UP NATIVE AMERICAN PORTRAITS, AND WE WOULD LOOK AT THE VARIOUS EYE COLORS ACROSS THESE PORTRAITS .



79%  
BROWN

5%  
AMBER

5%  
HAZEL

2%  
GREEN  
1%  
GRAY

8%  
BLUE