

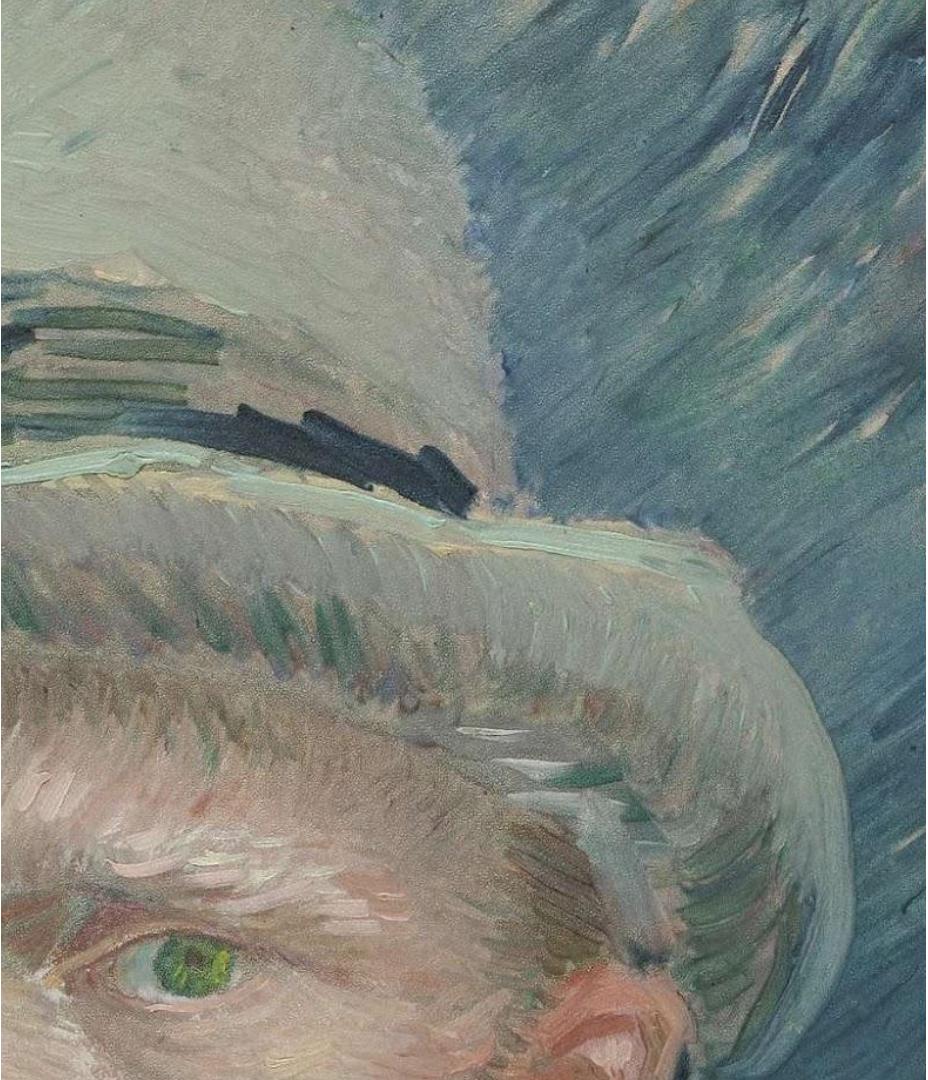
RIJKSVIZ

LES  
ARTISTES

JOHN HWONG | KATE McMANUS | PIERRE AMELOT

# TABLE OF CONTENTS

INTRODUCTION -	3
INSPIRATION -	7
DATA -	14
FACE RECOGNITION -	19
FINAL DESIGN -	23





# INTRO

---

# BACKGROUND AND MOTIVATION

ART IS AN EXPRESSION OF LIFE AND OF IMMEASURABLE CULTURAL VALUE TO SOCIETY. AS HCI DESIGNERS, WE WANTED TO BRING ART AND TECHNOLOGY CLOSER TOGETHER.



WHAT HELPS MAKES THIS POSSIBLE ARE RECENT TRENDS IN THE DIGITIZATION OF ART, SPEARHEADED BY INITIATIVES SUCH AS GOOGLE ARTS AND CULTURE.

## BACKGROUND AND MOTIVATION (CONT'D)

MUSEUMS KEEP A LARGE PART OF THEIR ART COLLECTION IN STORAGE. WHILE THERE IS DEBATE REGARDING THE PRACTICE, THE DIGITIZATION OF ART IS ONE SOLUTION TO THIS PROBLEM.

WE SELECTED THE RIJKSMUSEUM AS THE FOCUS OF OUR PROJECT BECAUSE OF ITS RECENT RENOVATION IN 2013 AND ITS FORWARD-THINKING DIGITAL INITIATIVES.

THE FINE ART WAREHOUSE

**Museums are keeping a ton of the world's most famous art locked away in storage**



# GOAL

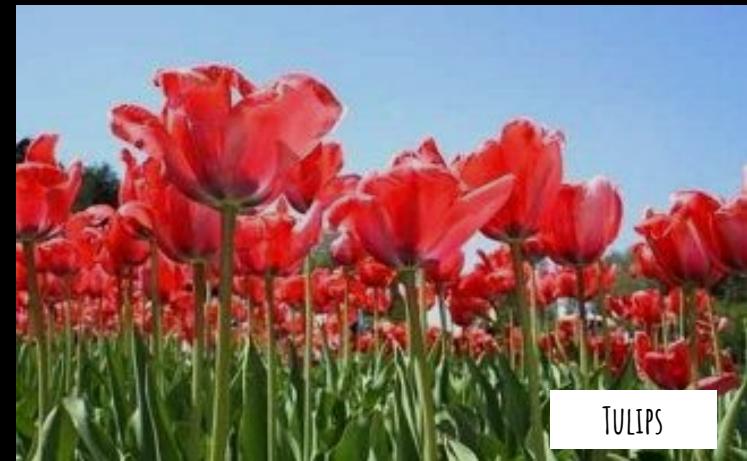
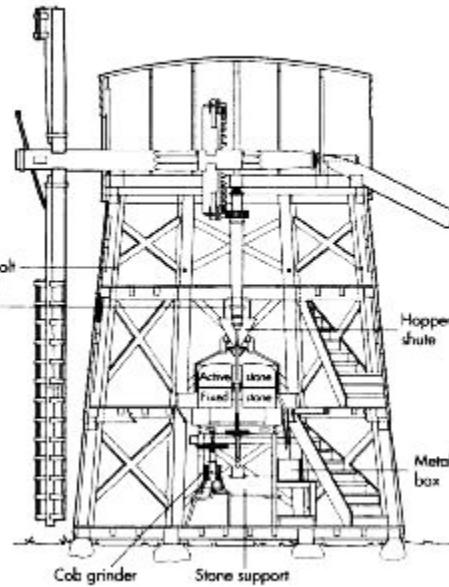
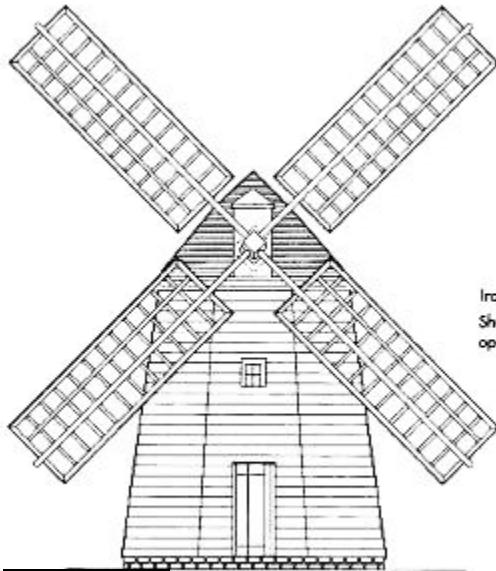
WE WANT TO ENABLE CASUAL ART-GOERS TO DIGITALLY *EXPLORE* THE RIJKSMUSEUM IN NOVEL AND UNIQUE WAYS, SO THAT THEY MAY FULLY APPRECIATE THE VALUE OF A MUSEUM'S ART COLLECTION IN ITS' ENTIRETY; WHICH OTHERWISE WOULD BE IMPOSSIBLE AT THE PHYSICAL LOCATION ITSELF.



# INSPIRATION AND INITIAL DESIGNS

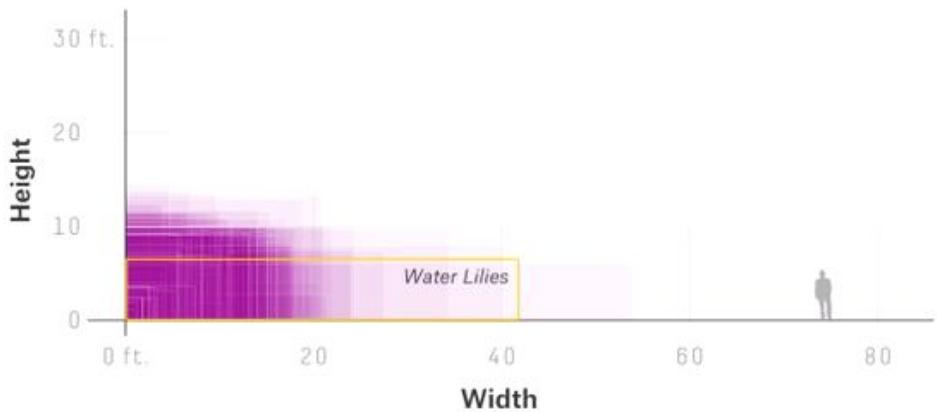


# INSPIRATION FROM DUTCH ICONS



# DIMENSIONS OF ART

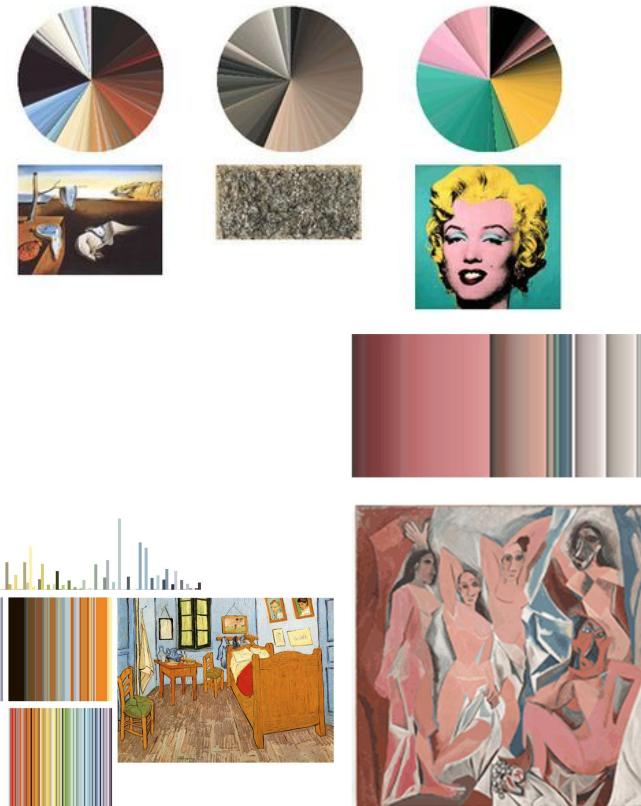
## Every MoMA Painting By Size



FIVETHIRTYEIGHT

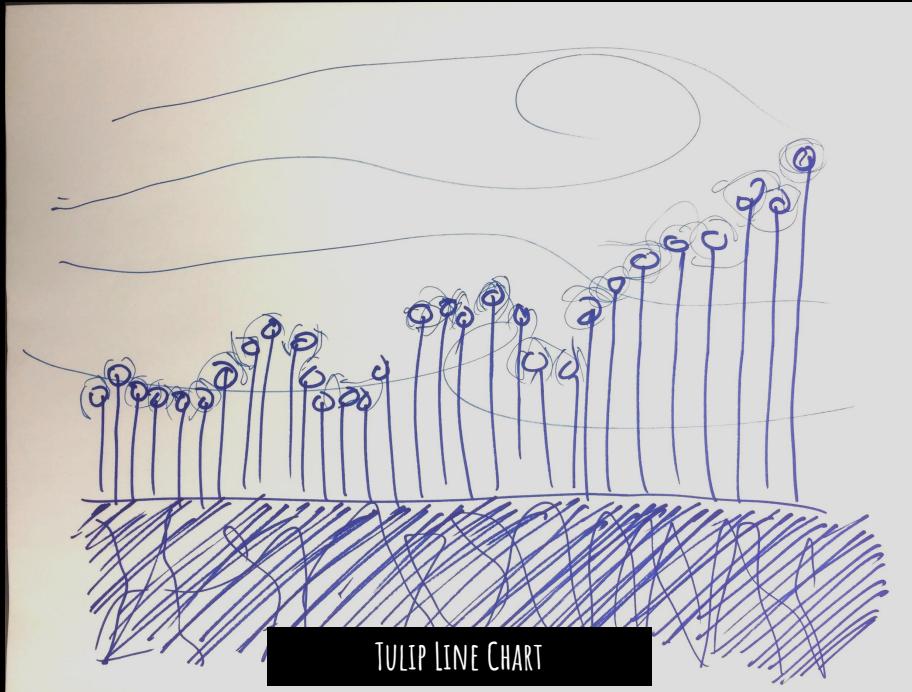
SOURCE: THE MUSEUM OF MODERN ART

PHYSICAL

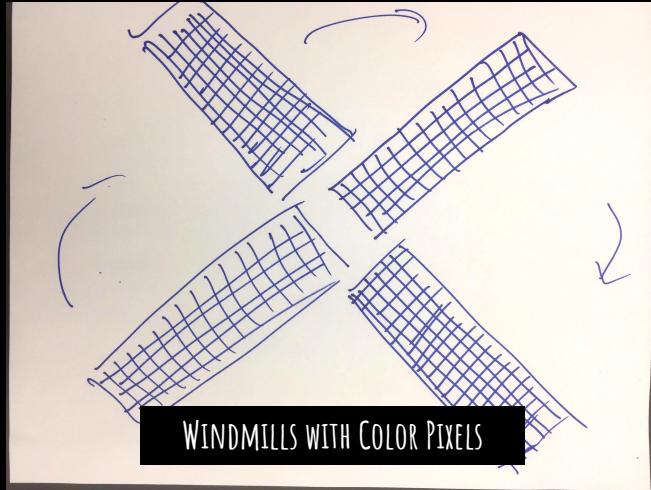


COLOR

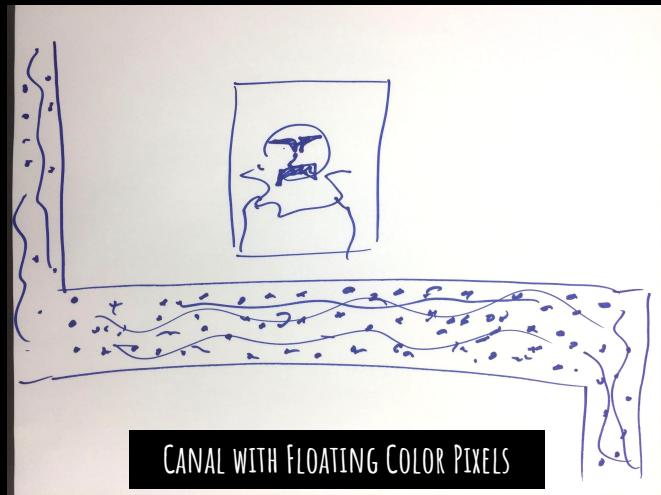
# INITIAL VIZ SKETCHES



TULIP LINE CHART

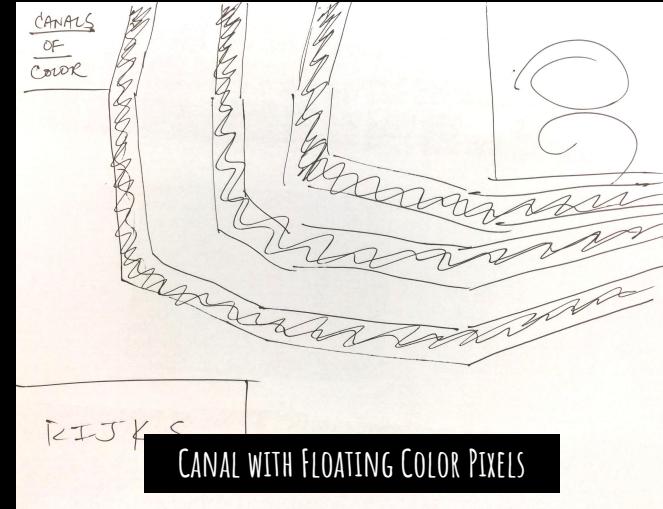
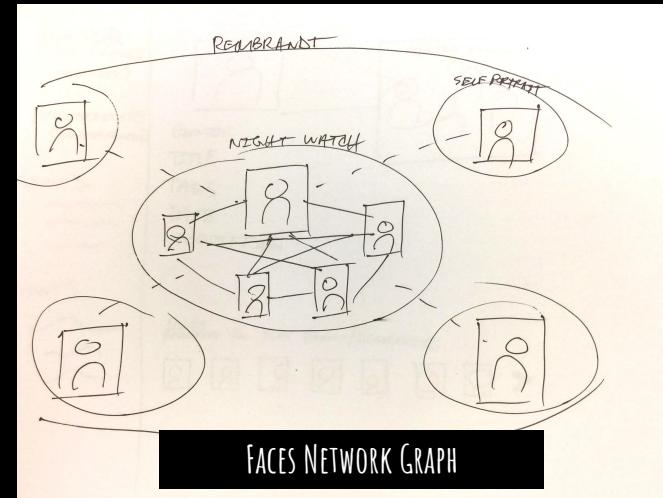
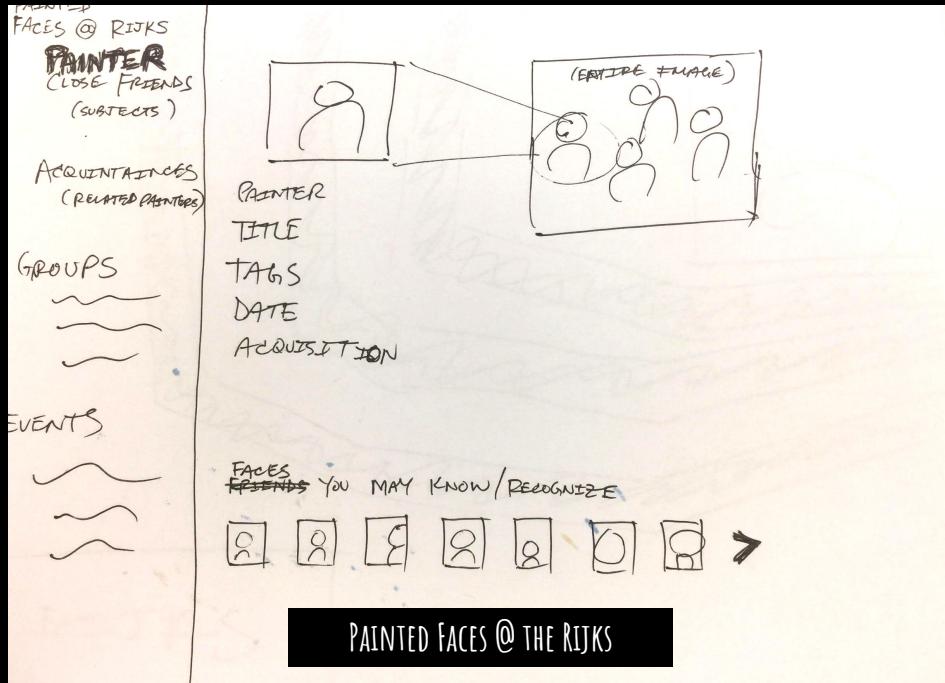


WINDMILLS WITH COLOR PIXELS

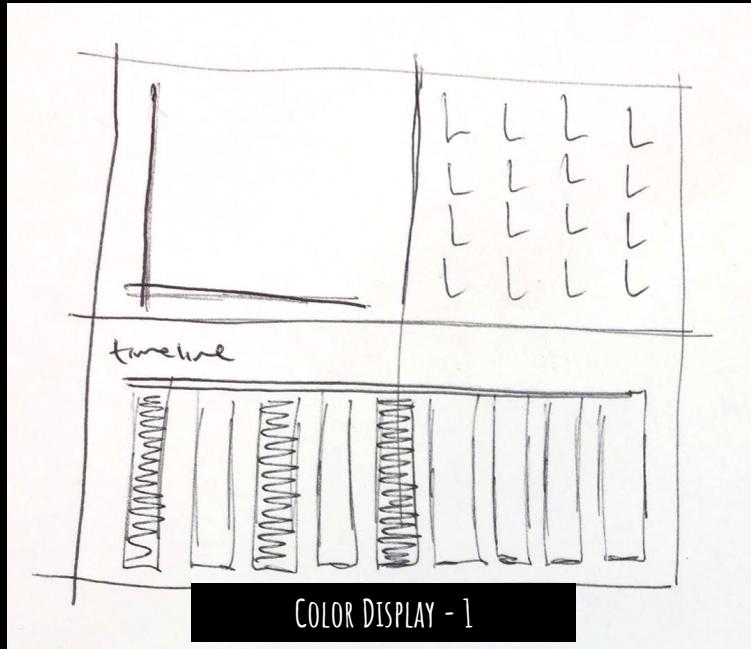


CANAL WITH FLOATING COLOR PIXELS

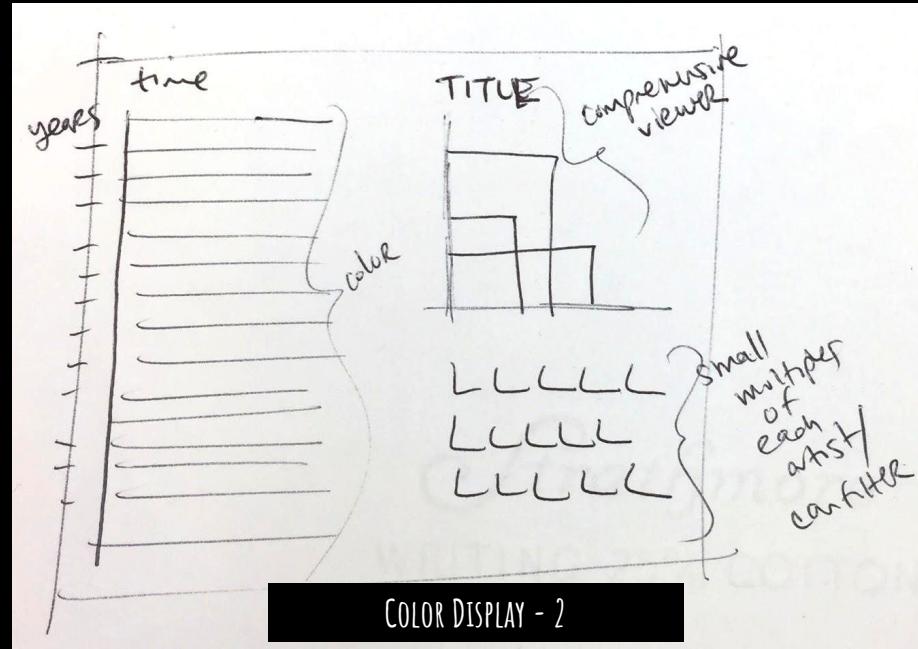
# REVISED VIZ SKETCHES



# REVISED VIZ SKETCHES

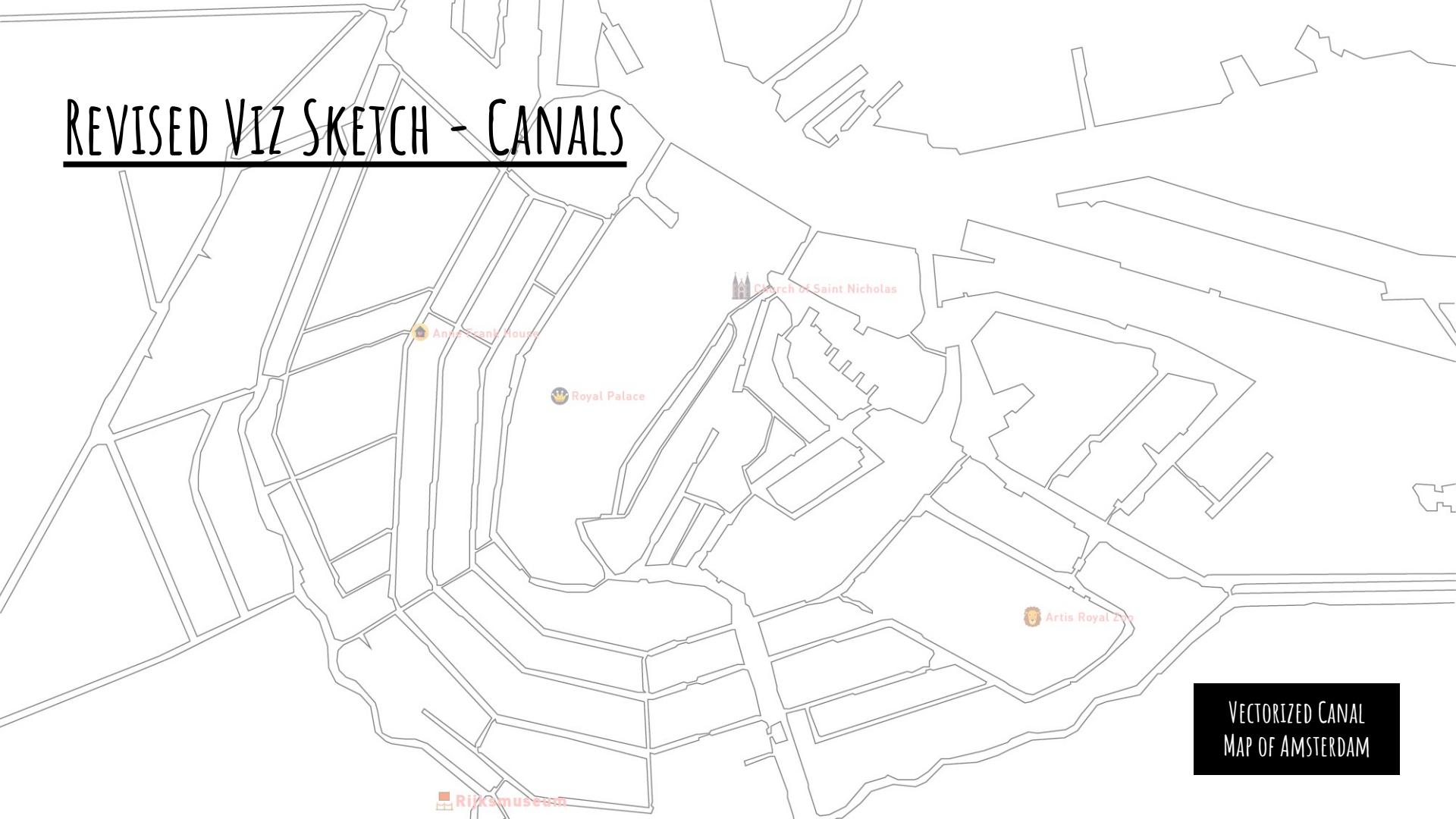


COLOR DISPLAY - 1



COLOR DISPLAY - 2

# REVISED VIZ SKETCH - CANALS



VECTORIZED CANAL  
MAP OF AMSTERDAM



DATA

---

# API

WE ARE USING THE RIJKSMUSEUM API  
([HTTPS://WWW.RIJKSMUSEUM.NL/EN/API](https://www.rijksmuseum.nl/en/api)). THIS JSON-BASED SERVICE PROVIDES US WITH ACCESS TO NEARLY 600,000 UNIQUE ART PIECES AND THEIR CHARACTERISTICS INCLUDING, BUT NOT LIMITED TO:

- DIMENSIONS
- MATERIALS
- ARTIST
- DATE CREATED
- STYLE

```
{  
  "elapsedMilliseconds": 287,  
  "count": 589806,  
  "artObjects": [  
    {  
      "links": {  
        "self": "https://www.rijksmuseum.nl/api/en/collection/SK-A-4050",  
        "web": "https://www.rijksmuseum.nl/en/collection/SK-A-4050"  
      },  
      "id": "en-SK-A-4050",  
      "objectNumber": "SK-A-4050",  
      "title": "Self Portrait as the Apostle Paul",  
      "hasImage": true,  
      "principalOrFirstMaker": "Rembrandt Harmensz. van Rijn",  
      "longTitle": "Self Portrait as the Apostle Paul, Rembrandt Harmensz. van Rijn, 1661",  
      "showImage": true,  
      "permitDownload": true,  
      "webImage": {  
        "guid": "8eca62db-11ab-4b38-ad47-107f54df13cb",  
        "offsetPercentageX": 50,  
        "offsetPercentageY": 14,  
        "width": 2287,  
        "height": 2724,  
        "url": "http://lh4.ggpht.com/HFwjp18jTNpNV0V2ZCvuBCNgEn4HUbF8FrccxDpD7koJ7HuZrKIs0_"},  
      "headerImage": {  
        "guid": "aba7d9da-5d4b-4389-8347-c3de63c33d98",  
        "offsetPercentageX": 50,  
        "offsetPercentageY": 50,  
        "width": 1920,  
        "height": 460,  
        "url": "http://lh5.ggpht.com/gbn1L-H61ahFQNd-E6zRlprIbhYjx0X7H-xfA8wVDDhcGbqjKZFx5_"},  
      "productionPlaces": []  
    },  
    {  
      "links": {  
        "self": "https://www.rijksmuseum.nl/api/en/collection/SK-A-3064",  
        "web": "https://www.rijksmuseum.nl/en/collection/SK-A-3064"  
      },  
      "id": "en-SK-A-3064",  
      "objectNumber": "SK-A-3064",  
      "title": "Portrait of a Girl Dressed in Blue",  
      "hasImage": true,  
      "principalOrFirstMaker": "Johannes Cornelisz. Verspronck",  
      "longTitle": "Portrait of a Girl Dressed in Blue, Johannes Cornelisz. Verspronck, 164",  
      "showImage": true,  
      "permitDownload": true,  
      "webImage": {  
        "guid": "0d832a58-0fc4-4570-b0c1-229bcac53f",  
        "offsetPercentageX": 50,  
        "offsetPercentageY": 38,
```

Type: painting  
Involved Maker: Rembrandt+Harmensz Img Only: True  
Dating Period: 17 Title: Portrait; Five-Javanese On Display: FALSE  
Acquisition keywords: Loan; Purchased; Gift Normalized Color: Nothing Search Painting

URL: [https://www.rijksmuseum.nl/api/en/collection?  
key=rgAMNabw&format=json&ps=100&type=painting&involvedMaker=Rembrandt+Harmensz.+van+Rijn&imgonly=True&ondisplay=FALSE](https://www.rijksmuseum.nl/api/en/collection?key=rgAMNabw&format=json&ps=100&type=painting&involvedMaker=Rembrandt+Harmensz.+van+Rijn&imgonly=True&ondisplay=FALSE)

Count: 34

Militia Company of District II under the Command of Captain Frans Banninck Cocq, Known as the 'Night Watch'  
Rembrandt Harmensz van Rijn (1606–1669), oil on canvas, 1642



Resolution: 2500 x 2034 Offset% X: 50, Offset% Y: 100

#### Colors



#### Colors w/ Normalization



#### Normalized Colors



#### Normalized 32 Colors



#### Normalized Colors



#### Painter

##### Name

Rembrandt Harmensz. van Rijn

##### Birth

1606-07-15  
Leiden

##### Death

1669-10-08  
Amsterdam

##### Nationality

Noord-Nederland

##### Production Places

- Amsterdam

#### Painting

##### ID

SK-C-5

##### Types

- painting

##### Date

1642 - 1642

##### Materials

- canvas  
- oil paint (paint)

##### Physical Medium

oil on canvas

##### Dimensions

height: 379.5 cm  
width: 453.5 cm  
weight: 337 kg  
weight: 170 kg

##### Production Places

- Amsterdam

##### Acquisition

On loan from the City of Amsterdam  
December 1807  
null

##### Tags

- warfare; military affairs (+ citizen  
soldier, civil guard, citizen militia)

# PROCESSING

THE PRIMARY CHALLENGE WITH THE DATA WAS THE SHEER AMOUNT AVAILABLE. WE WERE ABLE TO BETTER ORGANIZE THE TREASURE TROVE OF INFORMATION BY BUILDING AN INTERMEDIARY WEB TOOL IN WHICH WE CAN SEARCH, EXTRACT COLOR, AND DISPLAY IMPORTANT DETAILS FROM THE MUSEUM'S ENTIRE COLLECTION OF ART.

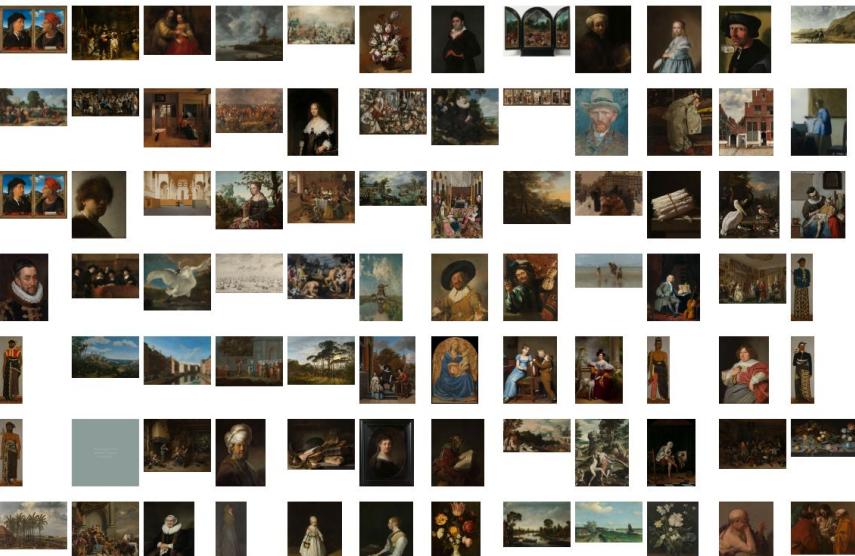
# PROCESSING (CONT'D)

Type: painting      Involved Maker: Rembrandt+Harmensz. van Rijn      Img Only: True      Query:

Dating Period: 17      Title: Portrait; Five+Javanese      On Display: FALSE      Sort by: achronologic

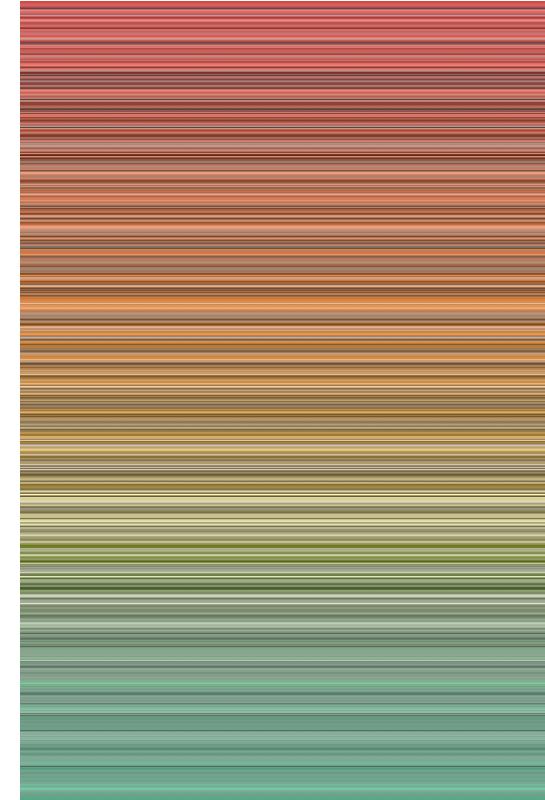
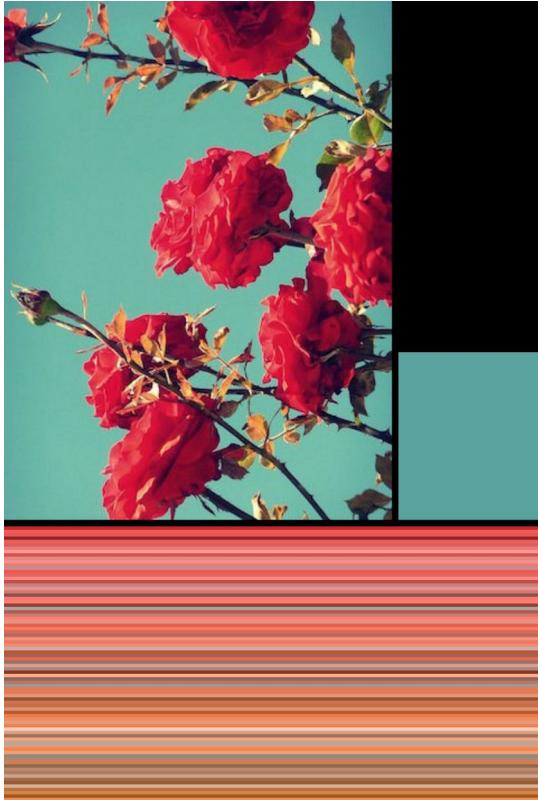
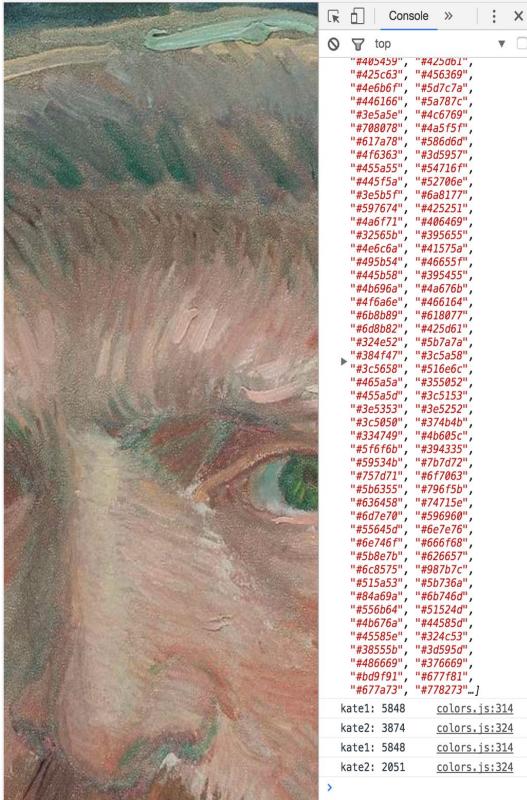
Acquisition keywords: Loan; Purchased; Gift      Normalized Color: Nothing     

URL: <https://www.rijksmuseum.nl/api/en/collection?key=rgAMNabw&format=json&ps=100&type=painting&imgonly=True&ondisplay=True>  
Count: 740



Painter	Painting
Name Rembrandt Harmensz. van Rijn	ID SK-C-5
Birth 1606-07-15 Leiden	Types - painting
Death 1669-10-08 Amsterdam	Date 1642 - 1642
Nationality Noord-Nederlands	Materials - canvas - oil paint (paint)
Production Places - Amsterdam	Physical Medium oil on canvas
Occupations - print maker - draughtsman - painter	Dimensions height: 379.5 cm width: 453.5 cm weight: 337 kg weight: 170 kg
Roles - painter	Production Places - Amsterdam
	Acquisition On loan from the City of Amsterdam December 1807

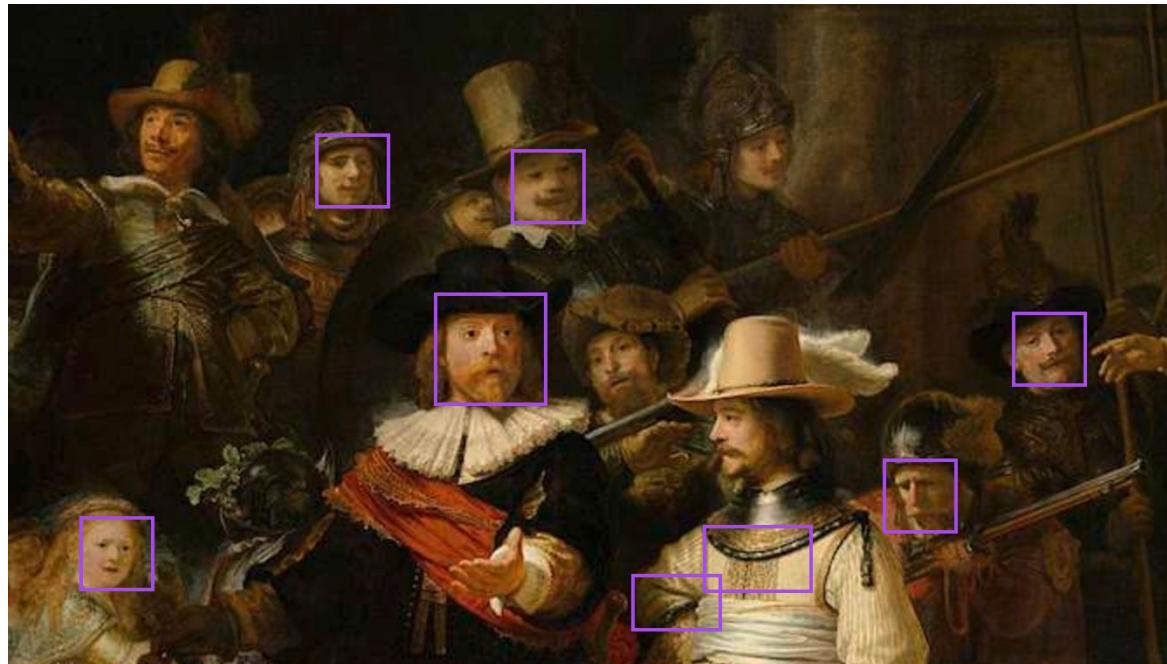
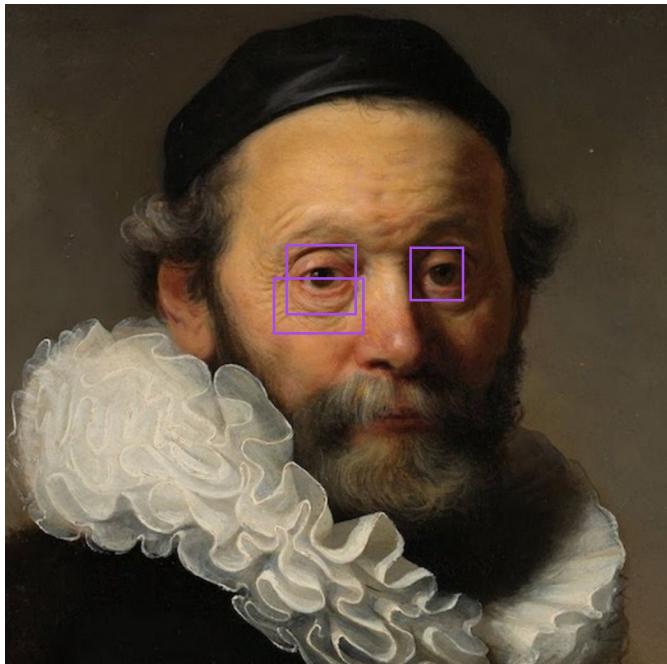
# PROCESSING (CONT'D)



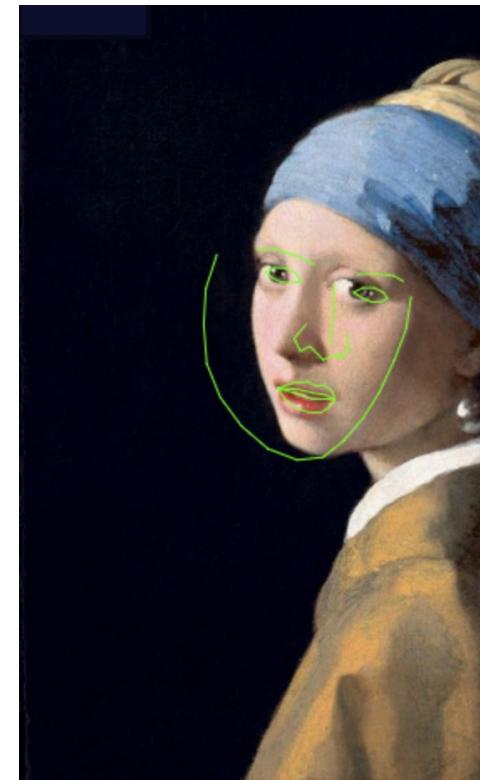


# FACE RECOGNITION

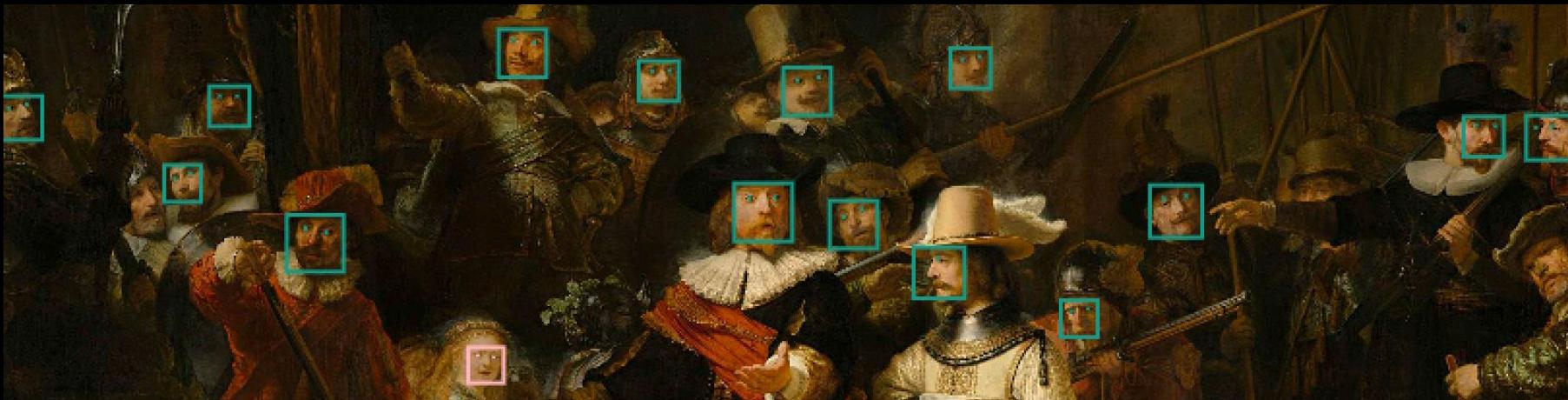
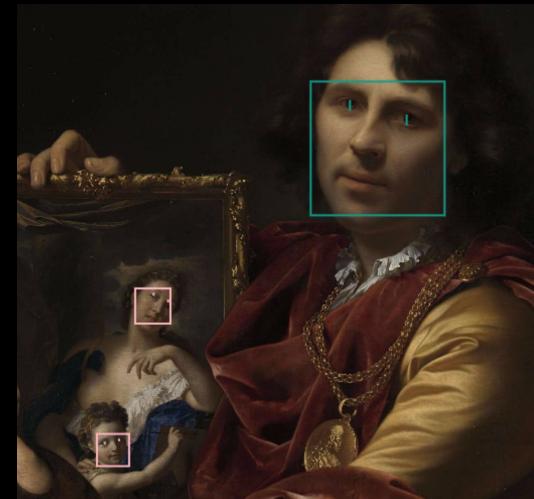
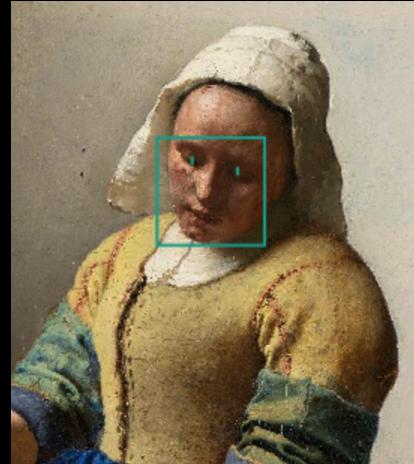
# ATTEMPT 1 - TRACKING.JS



## ATTEMPT 2 - CLMTRACKR.JS



# SUCCESS - KAIROS API





FINAL DESIGN

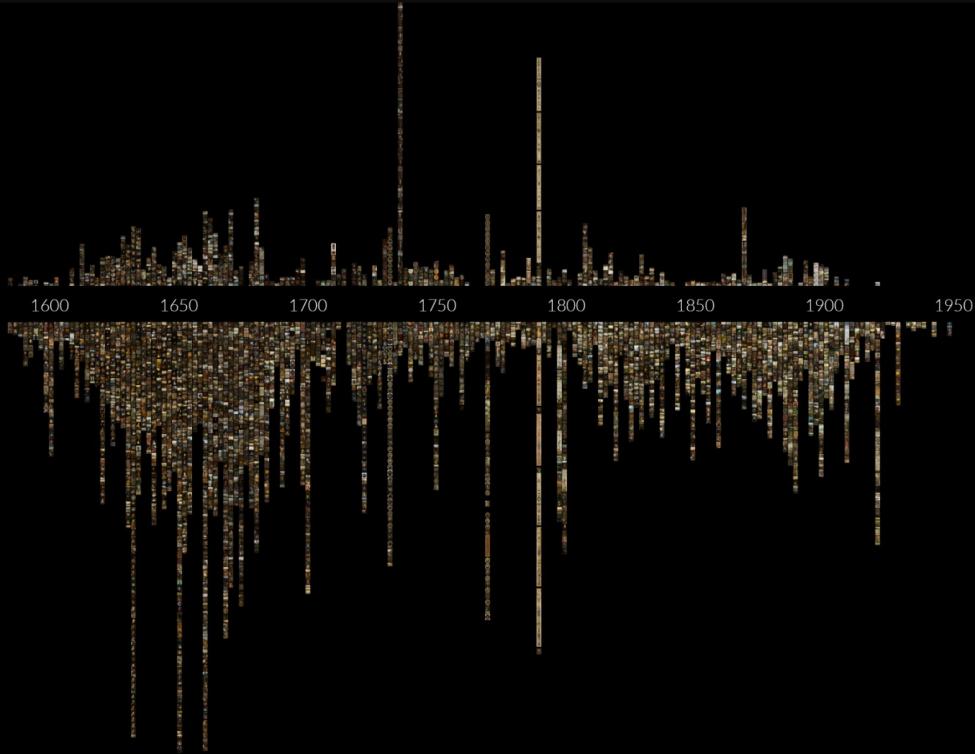
# HOME PAGE



THE HOMEPAGE SERVES AS THE HUB FOR OUR WEBSITE IN WHICH VISITORS MAY EXPLORE THE VARIOUS DIGITAL 'EXHIBITS' WE'VE PREPARED. THE BACKGROUND IMAGE IS OF THE OFFICIAL (RE-)OPENING OF THE RIJKSMUSEUM IN 2013, AFTER TEN YEARS OF RENOVATION; IT IS A CELEBRATION OF COLOR AND ART, AND TRANSITIONS. QUEEN BEATRIX (PICTURED CENTER) LED THE OPENING CEREMONY AND THIS WAS ONE OF HER LAST MAJOR PUBLIC APPEARANCES BEFORE HER AbdICATION.

# THE 'ICEBERG'

CURRENTLY  
ON DISPLAY



IN STORAGE

ONE OF THE TOPICS WE WISHED TO ADDRESS WAS THE PROPORTION OF THE RIJKSMUSEUM'S ART COLLECTION THAT WAS EITHER ON DISPLAY OR STORED AWAY. APPROPRIATELY LABELED THE 'ICEBERG', THIS VISUALIZATION EASILY CONVEYS THAT THE VAST MAJORITY OF THE MUSEUM'S ARTWORK IS NOT PUBLICLY EXHIBITED. INTERESTINGLY, THIS PROPORTION VARIES BY THE ERA IN WHICH THE ART PIECE ORIGINATES (X-AXIS) FROM.

# FACES @ THE RIJKS

Faces of the Rijks



Birthday: 1672

Skin texture: oil on panel

Left in the back room: No

FRIENDS



PHOTOS



Portrait of Constantijn Huygens (1596-1687)

ABOUT ME

Estimated ethnicity: White

Estimated Gender: Female

Height from forehead to chin: 4.8 cm

Intercheek distance: 4.9 cm

ABOUT MY MAKER

Name: Caspar Netscher

Birth: 1639 in Heidelberg

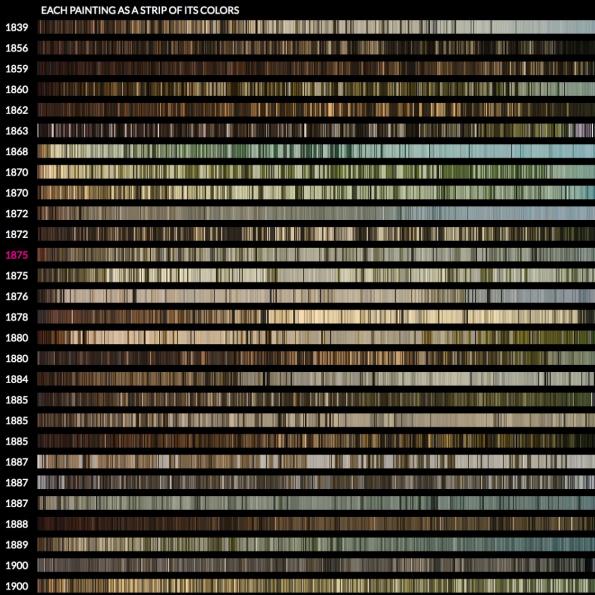
Death: 1684-01-15 in Den Haag

Nationality: Noord-Nederland

UTILIZING FACE RECOGNITION TECHNOLOGY, WE SOUGHT TO ORGANIZE THE RIJKS'S ARTWORK IN A MANNER FAMILIAR WITH MOST PEOPLE: FACEBOOK. FACES, OR THE PAINTED SUBJECTS, ARE FEATURED ON THEIR OWN INDIVIDUAL 'PROFILE' PAGE WITH DETAILS PULLED FROM THE KAIROS AND RIJKS APIs, SUCH AS ETHNICITY, GENDER, AND ARTIST INFORMATION. VISITORS ARE ENCOURAGED TO FURTHER EXPLORE BY TRAVERSING THROUGH A SUBJECT'S FRIEND NETWORK.

# HAEGUE SCHOOL

## Hague School



Fishing Pinks in Breaking Waves  
Hendrik Willem Mesdag (1831–1915), oil on canvas, c. 1875–1885



WITH THE MUSEUM'S PHYSICAL AND ARTISTIC ORIGINS IN THE HAGUE, WE FEATURE THE PROMINENT MEMBERS OF THE HAGUE SCHOOL EXHIBITED AT THE RIJKS IN THIS VISUALIZATION. UTILIZING AND FURTHER EXTRACTING THE DATA AVAILABLE TO US, WE NORMALIZE AND REORGANIZE THE COLOR AND THE DIMENSIONS OF THE PAINTING FOR EASY VIEWING AND COMPARISON AMONG THE MASTERS OF THE HAGUE SCHOOL.

THANK YOU!

