

# National Gallery Of Art Data Analysis

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SQLite database creation

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Data analysis using SQL

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Visualizations using Python

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# Project Objective

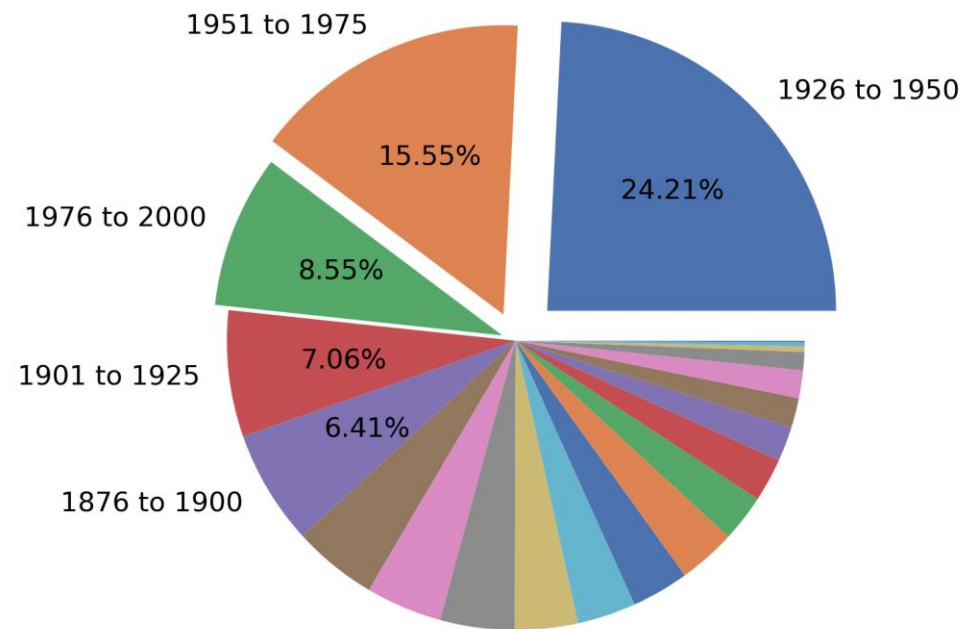
- Create SQLite database using CSV files and Entity Relationship Diagram (ERD)
- Perform data analysis using SQL to answer proposed questions
- Visualize results using Python

# Challenges

- Some foreign keys reference tables that **do not exist**, as stated in provided Data Dictionary
- Data Dictionary, CSV files, and ERD sometimes **do not match**
  - *Example: no CSV file for “objects\_altnums”, found in ERD*
- Some columns that were supposed to be foreign keys **do not match** primary key data
  - *Example: “constituents\_text\_entries” to “constituents”*
- **Duplicates** found in what was supposed to be primary key, which also prevents foreign key references
  - *Example: “preferred\_locations\_tms\_locations” to “preferred\_locations”*

# i. Timeframe of Artworks

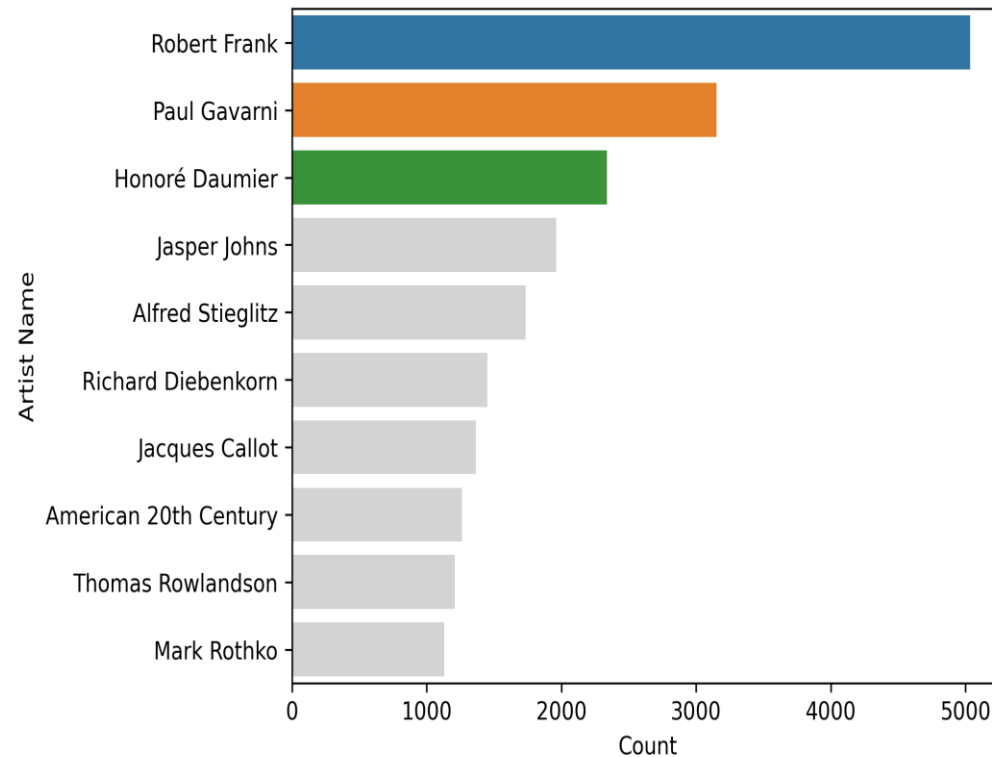
*What timeframe or time period are most of the artworks created from?*



Timeframe with the most artworks created was **1926 to 1950 (24.21% of total)**

## ii. Prolific Artists

*Who are the artists with the most works at the NGA?*

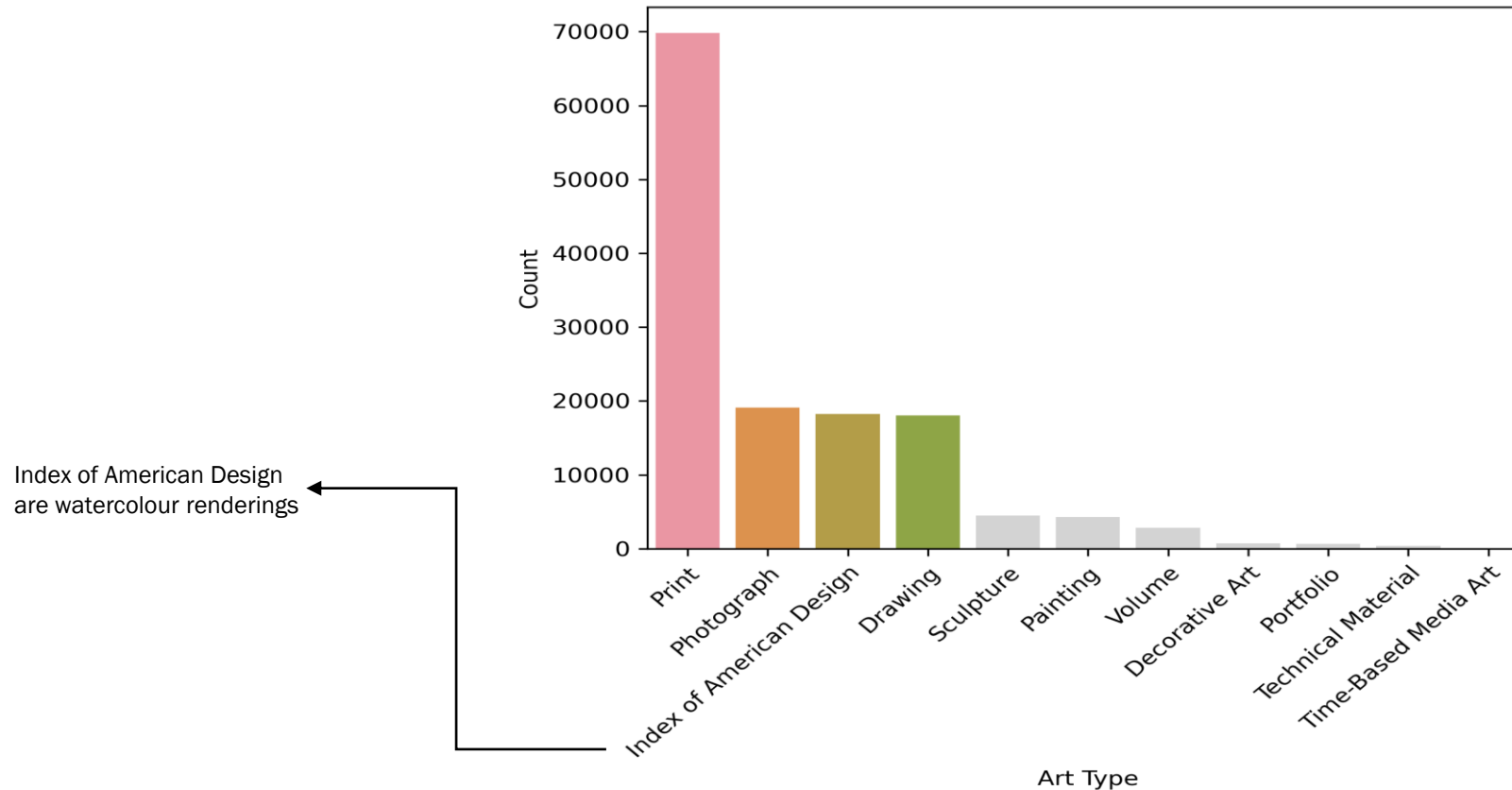


*Note: Only top 10 artists shown*

The top 3 artists with the most art work: **Robert Frank, Paul Gavarni, Honoré Daumier**

### iii. Artwork Types

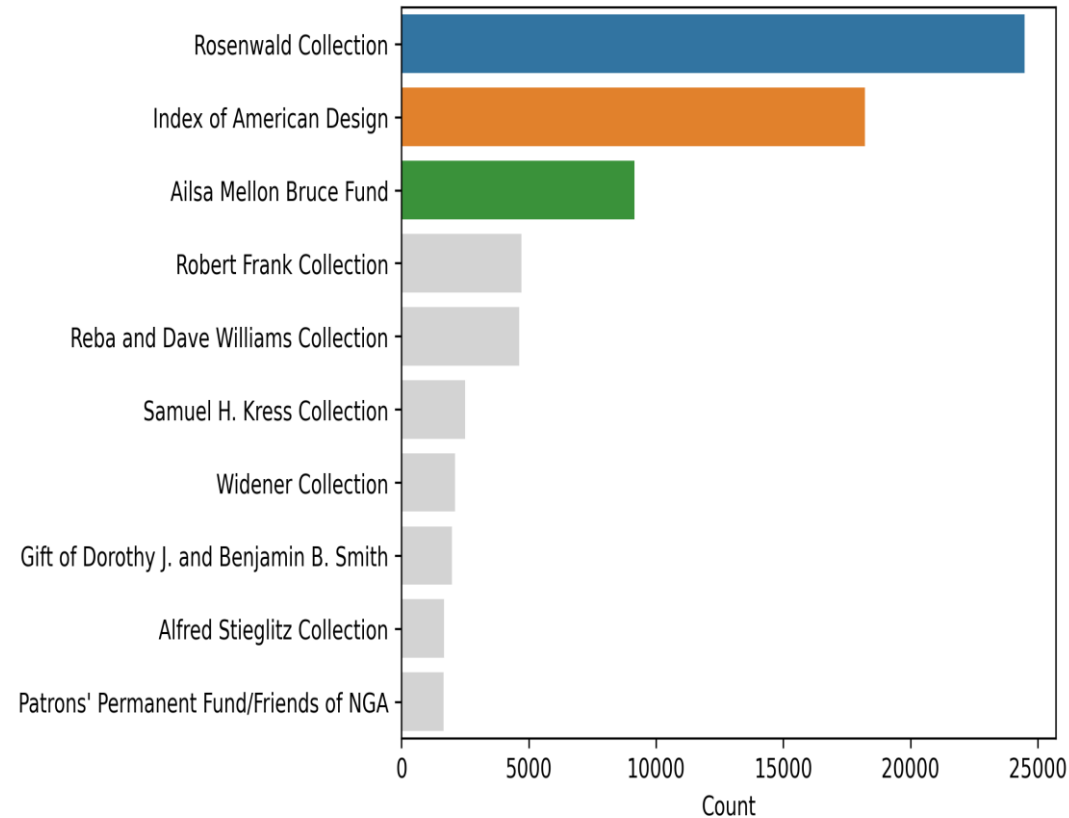
*What is the breakdown of the types of artworks in the NGA collection?*



Majority of artworks are **print (50.36%)**, followed by **photographs (13.79%)**, **watercolour renderings (13.16%)**, and **drawings (13%)**

## iv. Origins of Artworks

*Where were most of these artworks sourced from?*



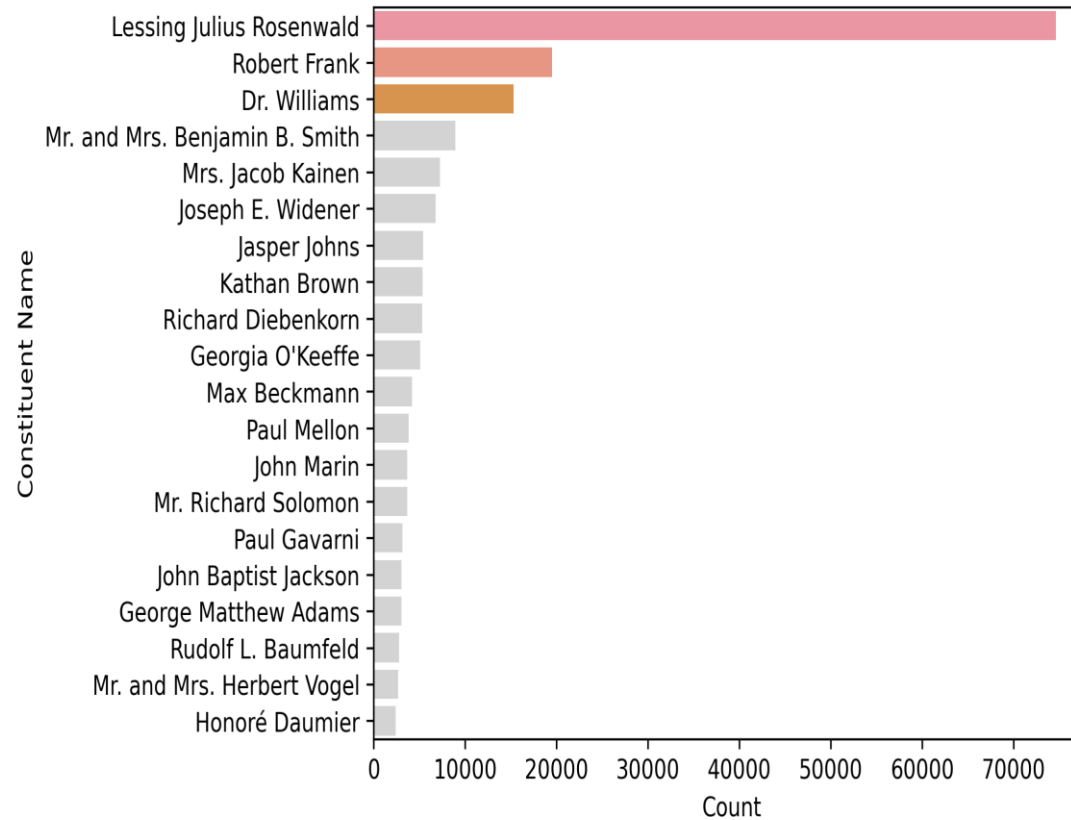
***Note:** Only top 10 sources shown*

**Top 3 sources:** Rosenwald Collection (17.65%), Index of American Design (13.13%), Ailsa Mellon Bruce Fund (6.6%)



# v. Top Constituents

*Who are the most active constituents to the NGA?*



**Note:** Only top 20 constituents shown

**Top 3 most active constituents: Lessing Julius Rosenwald, Robert Frank, Dr. Williams**

## vi. Canadian Artists

*How many Canadian artists are represented in the NGA collection?*

- There are **47 Canadian artists**

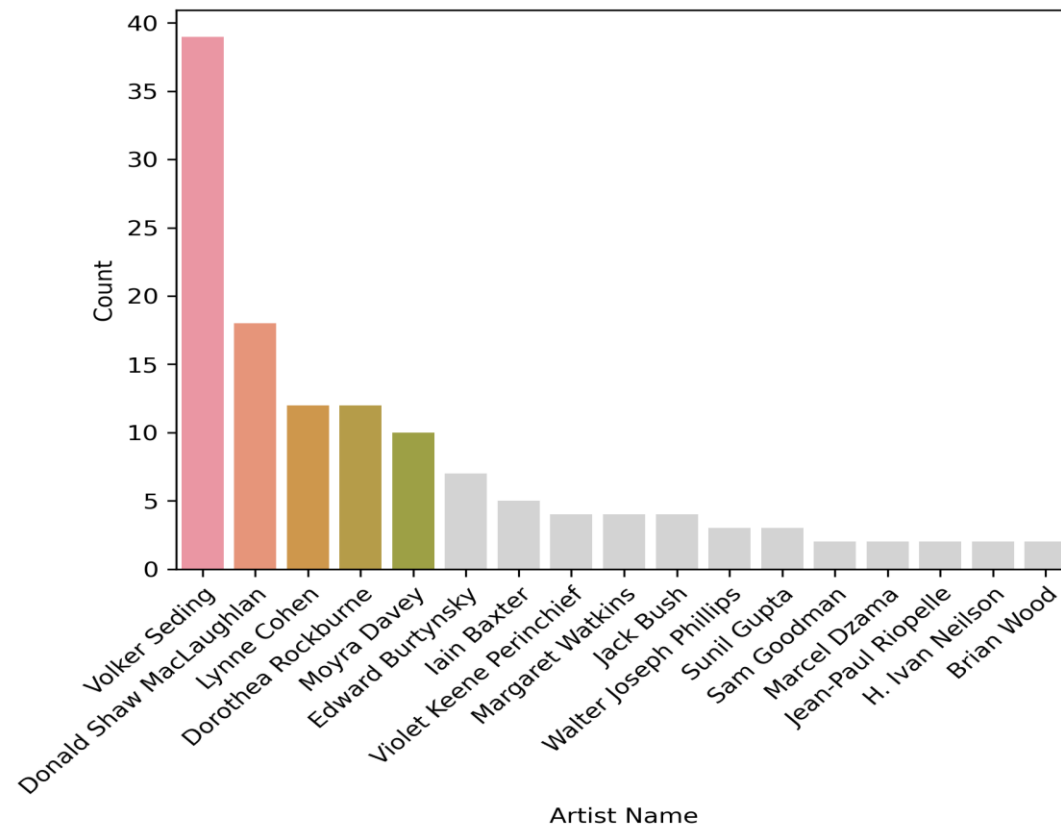
## vii. Canadian Artworks

*How many total art pieces are attributed to Canadian Artists?*

- There are **154 total pieces**

## viii. Attributed Artworks per Canadian Artist

*How many art pieces are attributed to each Canadian artist?*



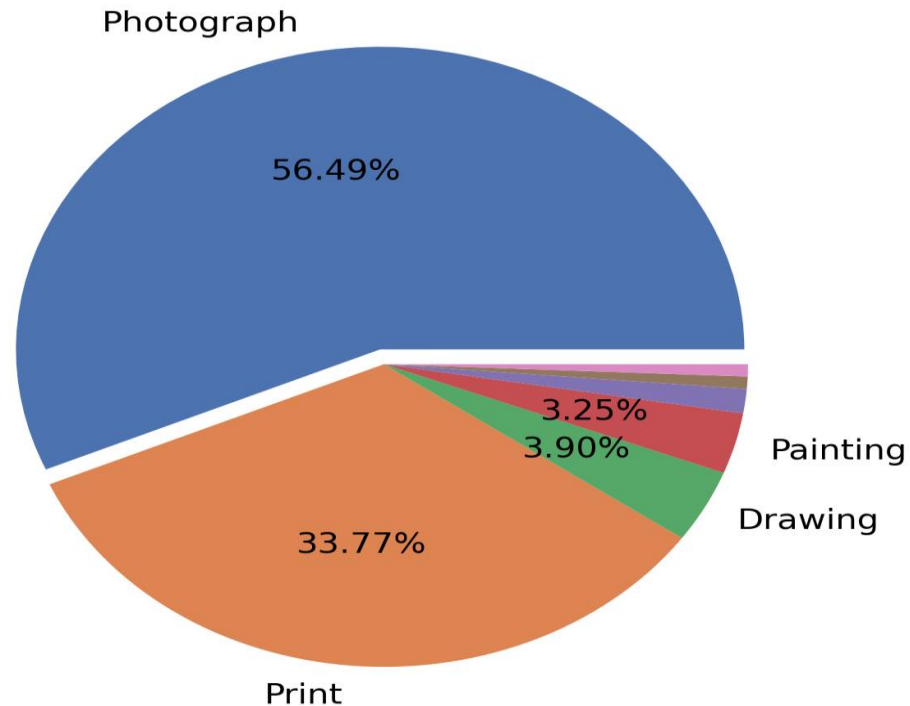
**Top 5:**

1. Volker Seding – 39 pieces
2. Donald Shaw MacLaughlan – 18 pieces
3. Lynne Cohen – 12 pieces
4. Dorothea Rockburne – 12 pieces
5. Moyra Davey – 10 pieces

***Note:** Artists with only 1 piece are not shown on graph*

# ix. Types of Canadian Artworks

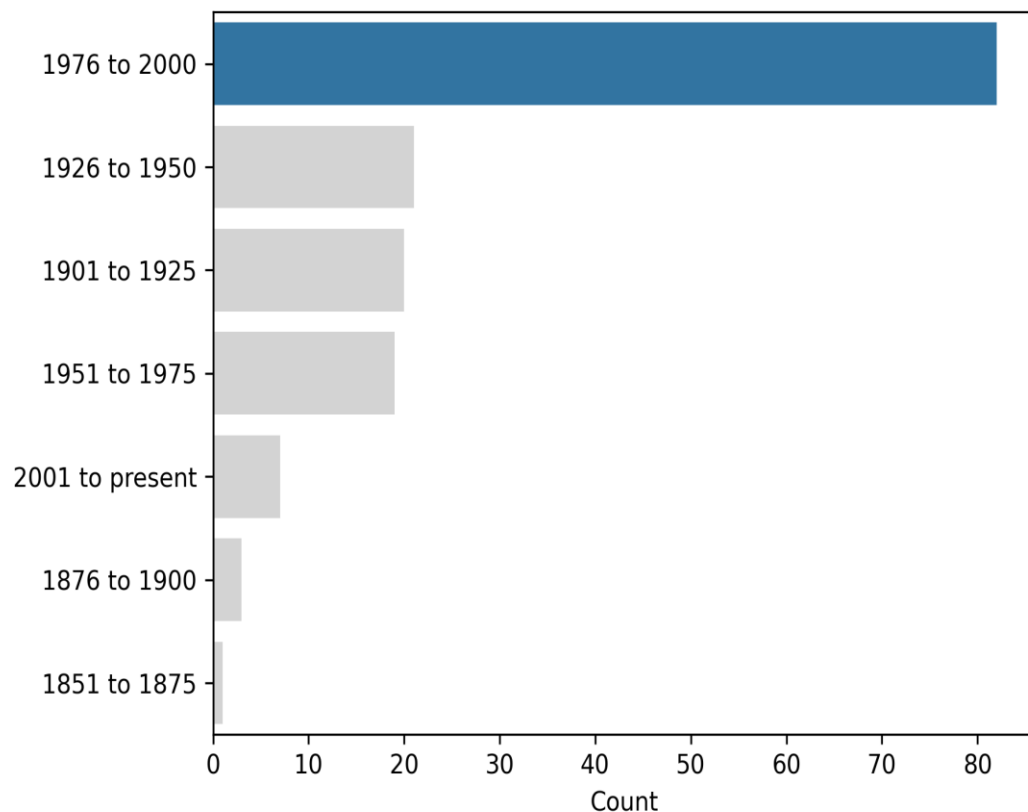
*What is the breakdown of the types of artworks by Canadian artists?*



Majority of Canadian artworks composed of **photographs (56.49%)**, followed by **print (33.77%)**. The other types make up a very small proportion.

# x. Time Period of Canadian Artworks

*In which time period were these artworks by Canadian artists predominantly created?*



Most artworks by Canadian artists created between:

- 1. 1976 to 2000 - 82 pieces**
- 2. 1926 to 1950 - 21 pieces**
- 3. 1901 to 1925 - 20 pieces**
- 4. 1951 to 1975 - 19 pieces**

## *Oldest Canadian artwork?*

**Artist:** Charles Caleb Ward

**Title:** His First Appearance in Public

**Art Type:** Painting

**Created:** 1870

**Link:** <https://www.nga.gov/collection/art-object-page.126485.html>

## *Latest Canadian artwork?*

**Artist:** Laura Letinsky

**Title:** Untitled #7

**Art Type:** Photograph

**Created:** 2009

**Link:** <https://www.nga.gov/collection/art-object-page.218000.html>