Contemporary Chinese Art Price Trends
Class: 21/FA-INFO-664-01 Program For Cultural Heritage
Student's Name: Jing Zhao

[View on Tableau](#)
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[Data set](#)

About This Project

This project was completed as the final assignment for INFO-664-Programming For Cultural Heritage at the Pratt Institute during the Fall 2021 semester. As a student who has a long-term interest in contemporary Chinese art, I have been frequently searching for artists' biographical information on artsy.com for individual/group project needs. In this project, I chose to look at the artworks' prices.

Project Summary

This project works with contemporary Chinese art prices data. Web scraping from artsy.com, I compiled 40 years' worth of data into four CSV files based on artworks in different medium categories and combined them into a single CSV file. Using this data, I was able to calculate the general price trend of artworks from 1980 to 2020, the artist & gallery ranking based on the artworks' prices, and sales status based on artist & artwork time period. Using Tableau, I created data visualizations of these price trends. I also created two word clouds based on the titles of the artworks I analyzed. Finally, I published the visualizations to Tableau Public.

Method

Web scraping

Firstly, I used the 'request' library to get the HTML script of artsy.com (filtered to contemporary Chinese art). Secondly, I used the 'parsel' library to parse data and use 'parsel.Selector' to get the content in selected labels which includes artist names, artwork titles, artwork year, artwork prices, gallery names, and sales status. Then, I looped through each webpage using the 'for' loop. Finally, I saved the datasets into CSV files.

Clean data & visualization

I used Excel to clean the datasets. There were four different spreadsheets at the beginning since I needed to extract data for four medium categories - Painting, Sculpture, Photography, and Video. I combined them into a single CSV file and began to clean data. Firstly, I divided the creation dates into different time periods. Secondly, the currency of the artwork prices that are displayed on Artsy is different, though most of them are marked as 'US$'. For the consistency of the dataset, I converted other currencies to 'US$' by calculating the prices based on the current exchange rate and then corrected them in the spreadsheet. Thirdly, the Sales Status field on Artsy is originally described as the artwork's price/"Contact for Price"/"Sold", which makes the scraped data look messy. I separated artworks that were marked prices and artworks that were marked "Contact for Price"/"Sold". Also, to keep the dataset easier to visualize, I used "True"/"False" to separate artworks that were sold/not sold. Finally, the cleaned CSV file was imported to Tableau for visualization.
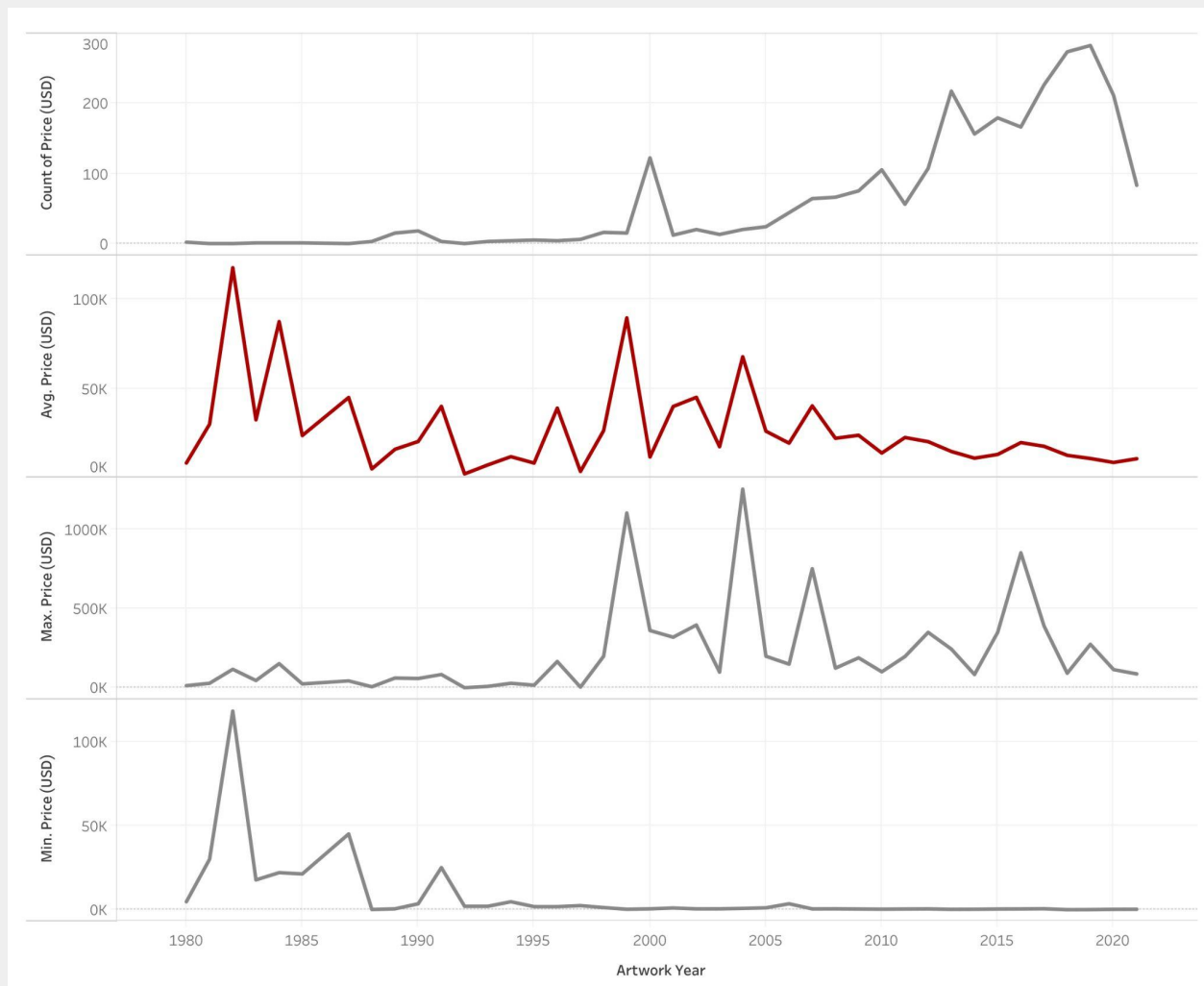
Visualization 1: General price trend

Figure 1. General Price Trend

- Galleries tend to display early-created artworks' prices online but not display recent-created artworks'.
- The average price of artworks created during the early 1980s is the highest. The average price of artworks created during the late 1990s is higher than the average price of artworks created after that time period.
- The polarization of individual prices of artworks created after the late 1990s is severe.
- The lowest prices of artworks created after the late 1980s are lower than the lowest prices of earlier-created artworks.

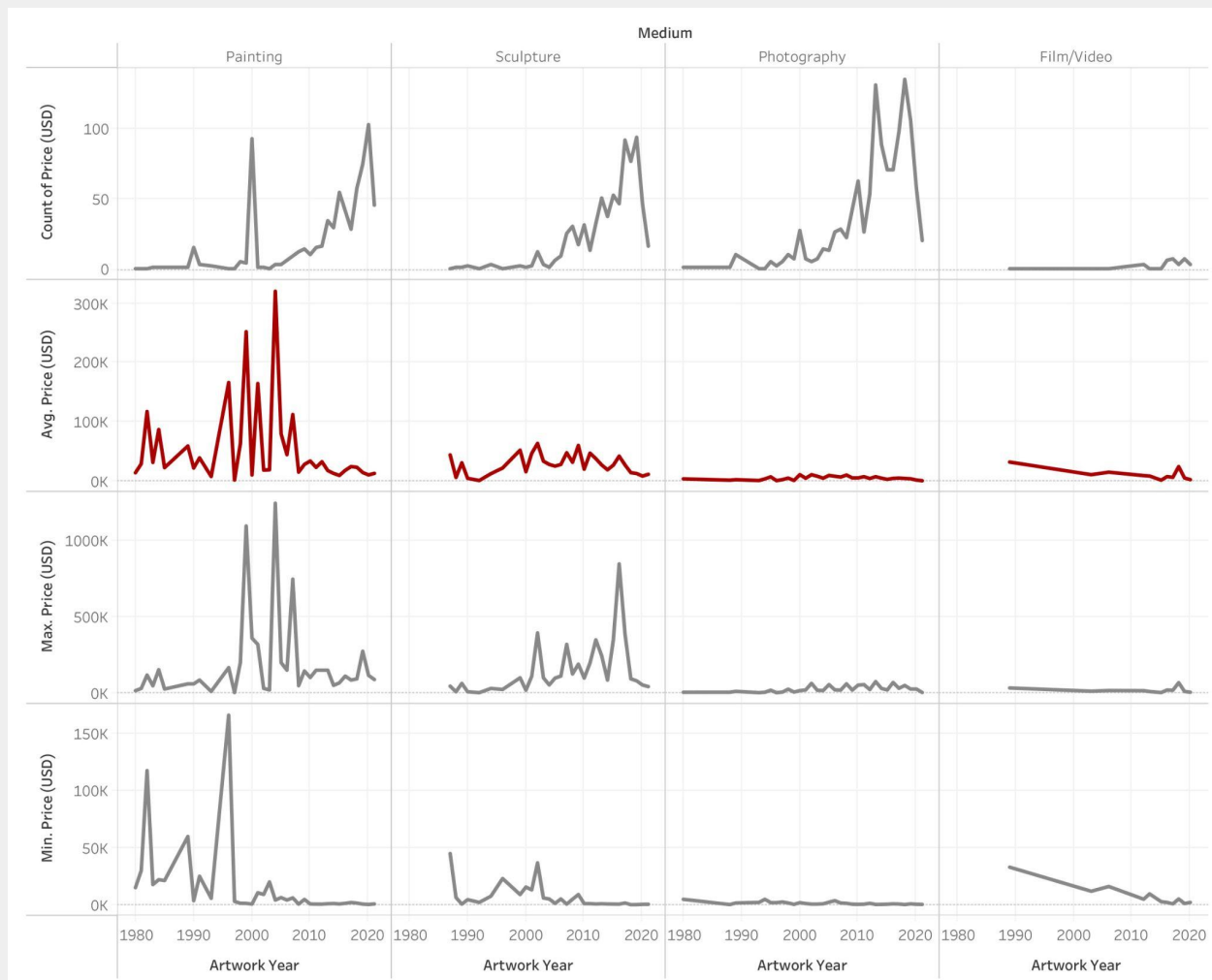**Visualization 2: Price trend based on artworks' mediums**

Figure 2. Price Trend Based on Artworks' Mediums

- Painting: The number of paintings created around 2000 is much higher than the paintings created before. After 2000, the number of paintings created dropped dramatically, but, later, it continued to increase each year. The average prices of paintings created between 1990 and 2010 are high. Also, the highest prices of paintings created during this period are much higher than before and after. However, the lowest prices of paintings created during and after this period are much lower than before.
- Sculpture: The number of sculptures created after 2000 continues to increase each year. The average prices of sculptures created each year are stable. There are some sculptures (created after 2000)' prices are much higher than sculptures created before.
- Photography: There were more and more photography works created after 2000. The average prices of this medium category are low. There are only little differences between highest prices and lowest prices.
- Film/Video: The number of film/video works created each year stayed low each year. The average prices and lowest prices continued to drop slightly every year.
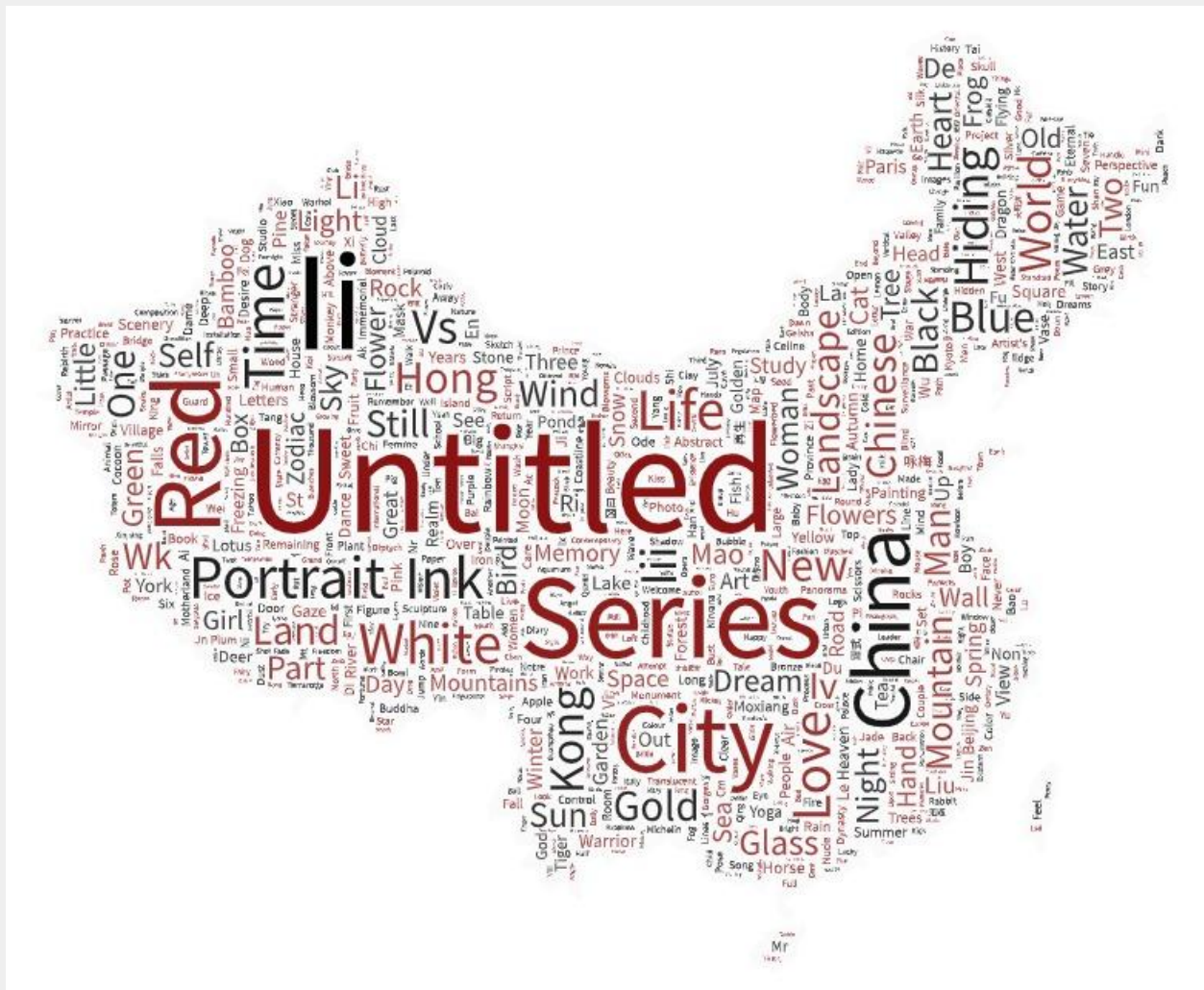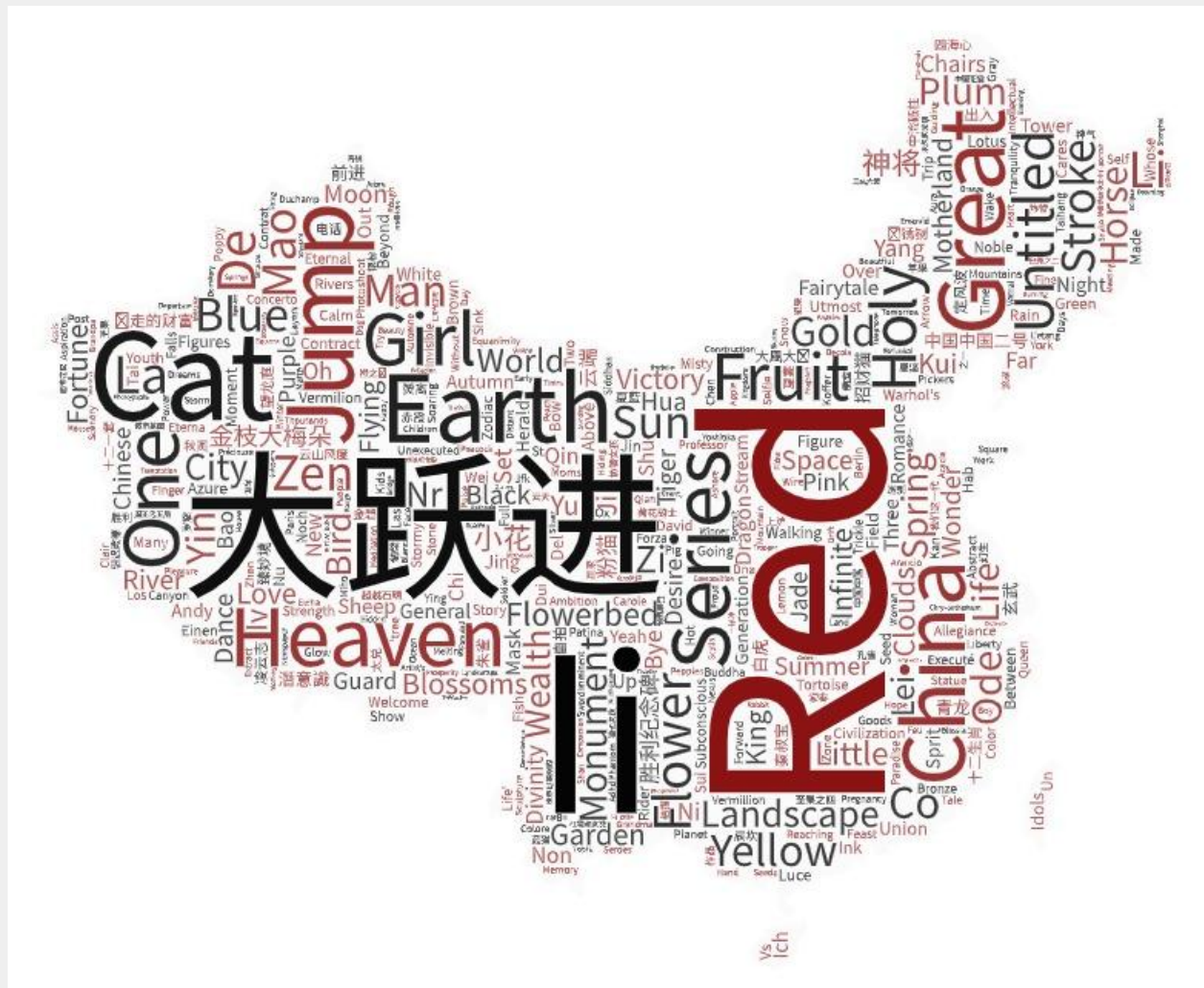
Visualization 3: Artwork titles

Figure 3. Word Cloud of Artworks' Titles

"Untitled", "Series", "City", "China", and "Red" are the most used words in artworks' titles.

Figure 4. Word Cloud of the Titles of Artworks Sale High Prices (Top 10%)

"Red", "大跃进" (great leap forward), "Cat", "Great", "Earth", and "China" are the most used words in titles of artworks sale high prices.

Visualization 4: Artist & gallery ranking
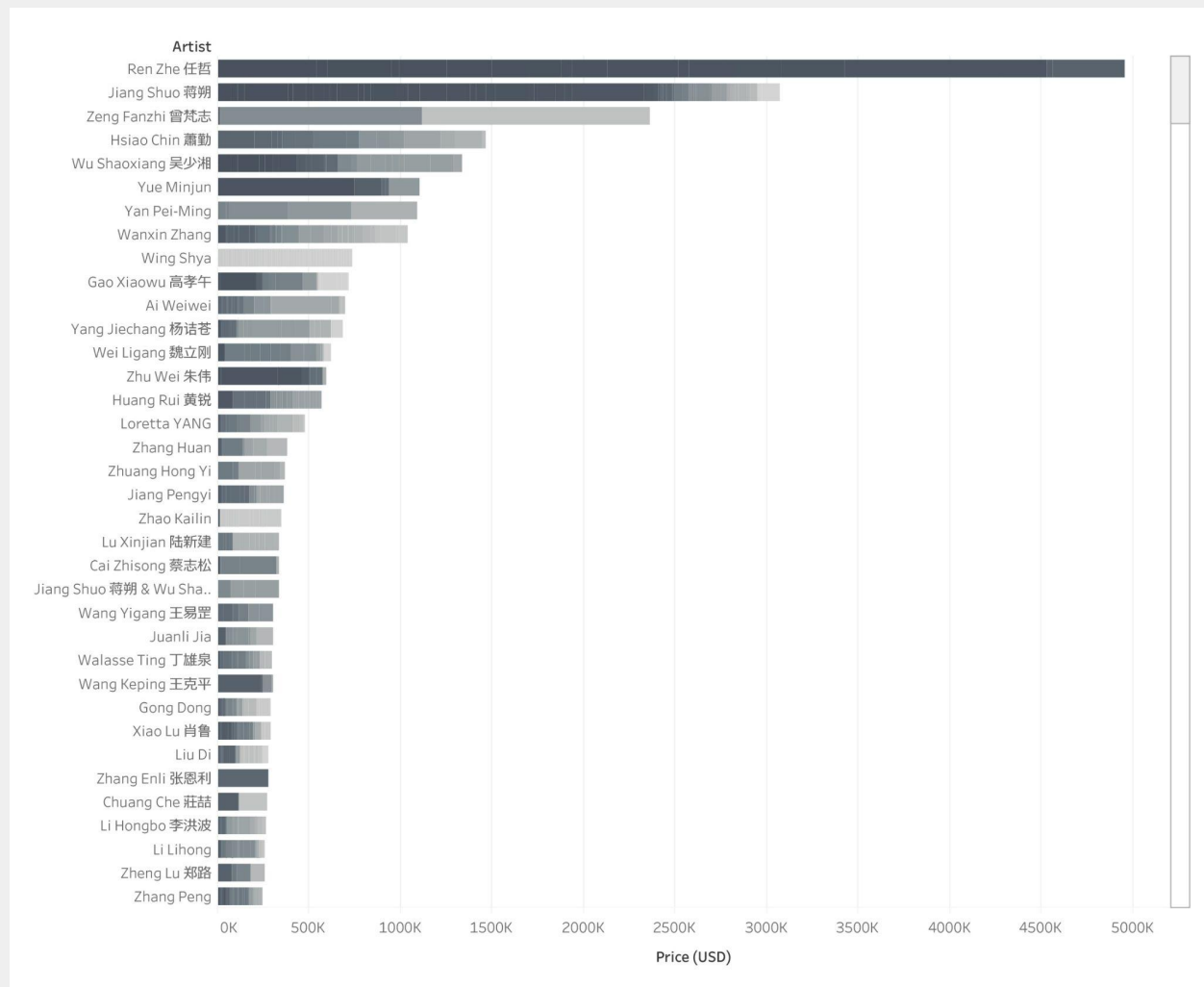
Figure 5. Artist Ranking Based on Sum Prices of Artworks

Some artists' artworks' sum prices are high, but the prices of their individual artworks are lower than other artists'. Ren Zhe, for example, there are 21 artworks of him listed on artsy.com. The highest price of work created by him (*Above the Cloud*) is 850,000 USD. Although Zeng Fanzhi's artworks' sum price is lower than Ren Zhe's artwork's sum price, the highest price of Zeng's work - *Andy Warhol's Photoshoot* is 1,250,000 USD, which is much higher than *Above the Cloud*.

For detailed view, please visit:
https://public.tableau.com/views/AnalysisofContemporaryChineseArtPriceTrend/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link
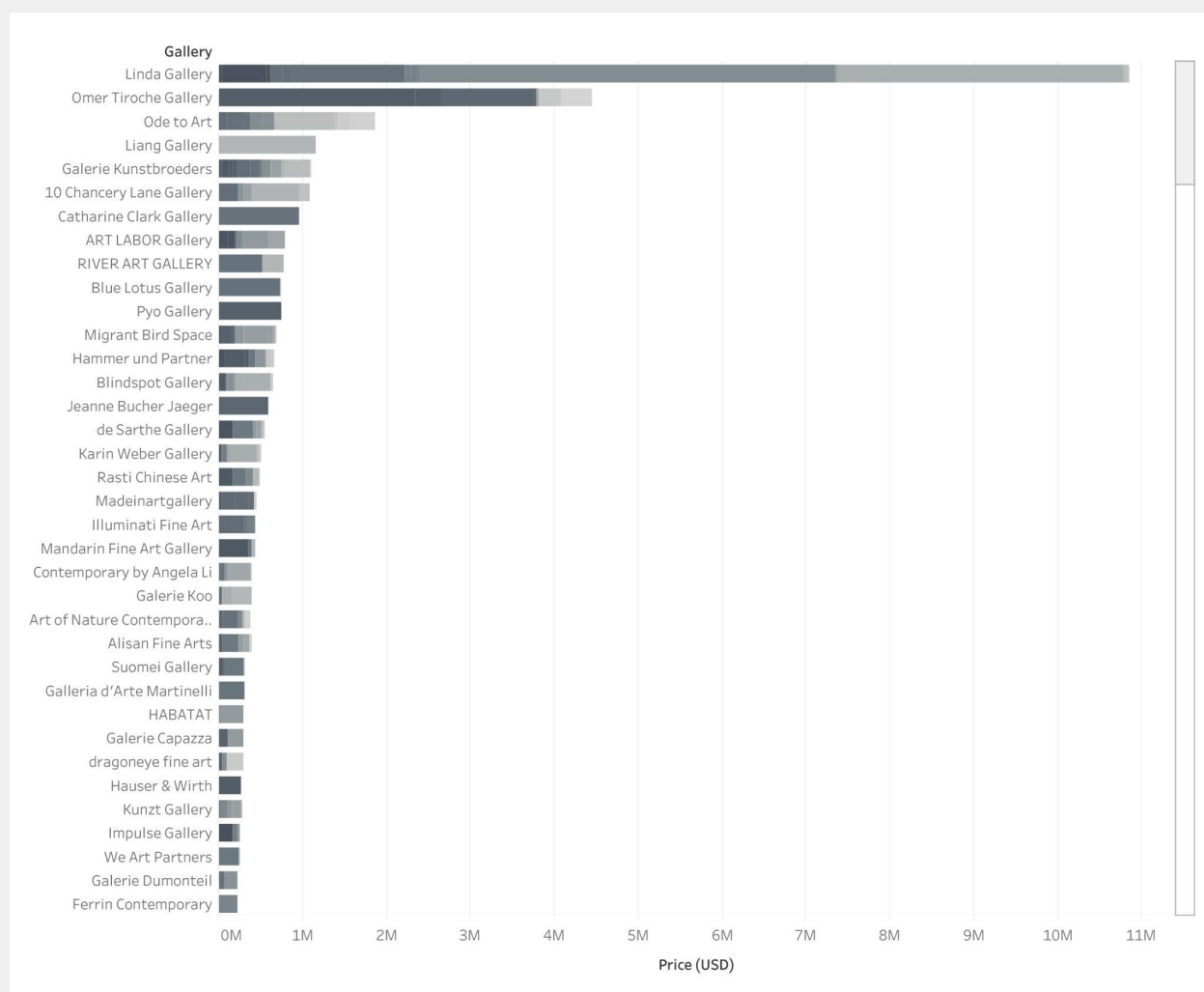
Figure 6. Gallery Ranking Based on Sum Prices of Artworks

The highly ranked galleries tend to represent artists whose works sell at high prices. For example, Linda Gallery is representing Ren Zhe and Omer Tiroche Gallery is representing Zeng Fanzhi.

For a detailed view, please visit:
https://public.tableau.com/views/AnalysisofContemporaryChineseArtPriceTrend/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Visualization 5: Sales status based on artist and gallery

Figure 7. Sales Status Based on Artist and Artwork Time Period

For a detailed view, please visit:
https://public.tableau.com/views/AnalysisofContemporaryChineseArtPriceTrend/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

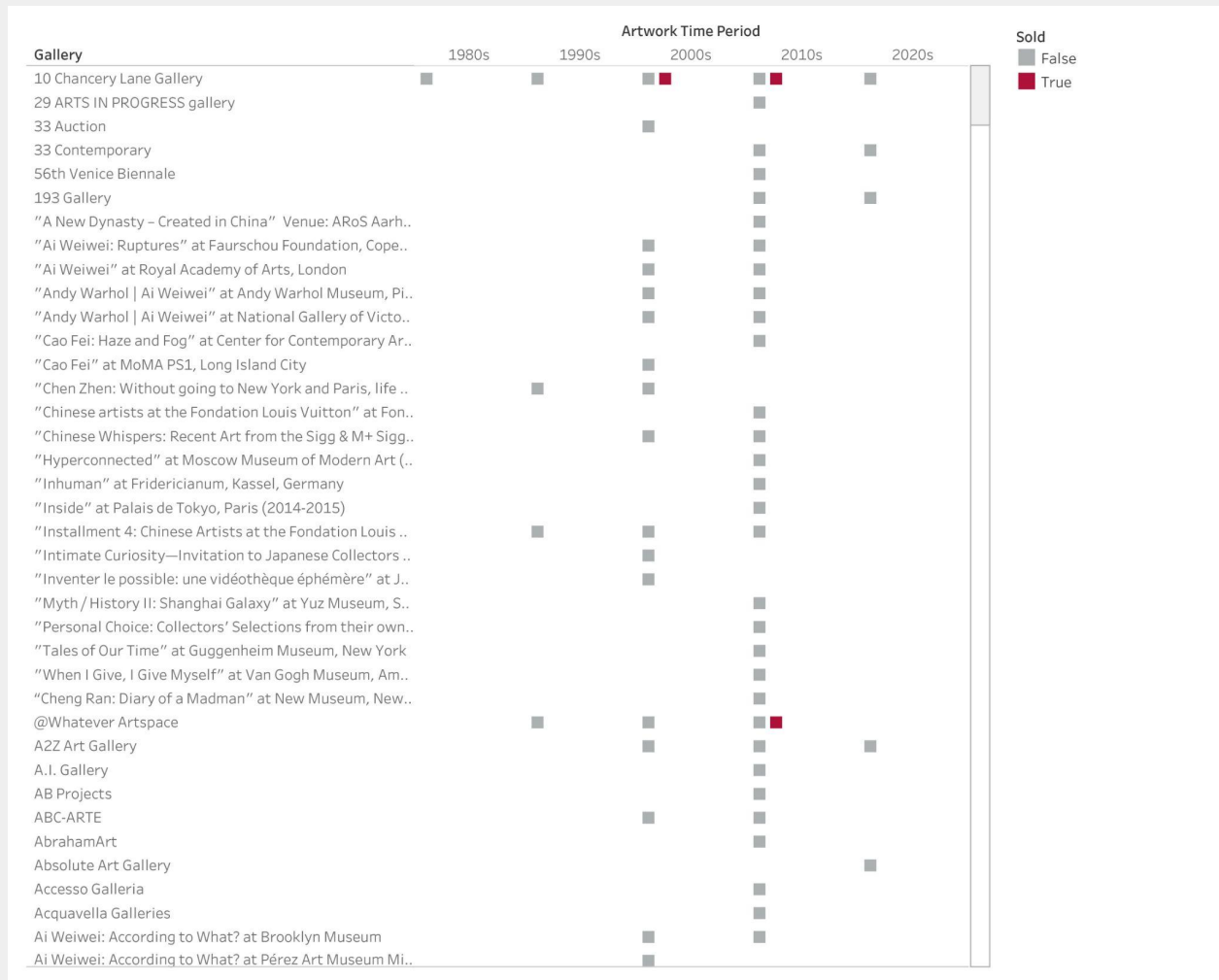|	Artwork Time Period				
Gallery	1980s	1990s	2000s	2010s	2020s
10 Chancery Lane Gallery	■	■	■ ■	■ ■	■
29 ARTS IN PROGRESS gallery				■	
33 Auction			■		
33 Contemporary				■	■
56th Venice Biennale				■	
193 Gallery				■	■
"A New Dynasty – Created in China" Venue: ARoS Aarh..				■	
"Ai Weiwei: Ruptures" at Faurschou Foundation, Cope..			■	■	
"Ai Weiwei" at Royal Academy of Arts, London			■	■	
"Andy Warhol	Ai Weiwei" at Andy Warhol Museum, Pi..			■	■	
"Andy Warhol	Ai Weiwei" at National Gallery of Victo..			■	■	
"Cao Fei: Haze and Fog" at Center for Contemporary Ar..				■	
"Cao Fei" at MoMA PS1, Long Island City			■		
"Chen Zhen: Without going to New York and Paris, life ..		■	■		
"Chinese artists at the Fondation Louis Vuitton" at Fon..				■	
"Chinese Whispers: Recent Art from the Sigg & M+ Sigg..			■	■	
"Hyperconnected" at Moscow Museum of Modern Art (..				■	
"Inhuman" at Fridericianum, Kassel, Germany				■	
"Inside" at Palais de Tokyo, Paris (2014-2015)				■	
"Installment 4: Chinese Artists at the Fondation Louis ..		■	■	■	
"Intimate Curiosity—Invitation to Japanese Collectors ..			■		
"Inventer le possible: une vidéothèque éphémère" at J..			■		
"Myth / History II: Shanghai Galaxy" at Yuz Museum, S..				■	
"Personal Choice: Collectors' Selections from their own..				■	
"Tales of Our Time" at Guggenheim Museum, New York				■	
"When I Give, I Give Myself" at Van Gogh Museum, Am..				■	
"Cheng Ran: Diary of a Madman" at New Museum, New..				■	
@Whatever Artspace		■	■	■ ■	
A2Z Art Gallery			■	■	■
A.I. Gallery				■	
AB Projects				■	
ABC-ARTE			■	■	
AbrahamArt				■	
Absolute Art Gallery					■
Accesso Galleria				■	
Acquavella Galleries				■	
Ai Weiwei: According to What? at Brooklyn Museum			■		
Ai Weiwei: According to What? at Pérez Art Museum Mi..			■		

Sold
■ False
■ True

Figure 8. Sales Status Based on Gallery and Artwork Time Period

For a detailed view, please visit:
https://public.tableau.com/views/AnalysisofContemporaryChineseArtPriceTrend/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Limitations

Artist birth/deceased year (The API does not accessible to the public)

The artists' birth/deceased years are difficult to scrap due to the filter setting of artsy.com. Thus, this analysis project does not include a visualization based on artists' birth/deceased years.

The Year of the Artwork be Created

In the original dataset, some artworks' creation year includes a "ca.", which is a written abbreviation of circa. If the creation year shows "ca. 1995", it means that the artwork was created between 1990 and 2000. To keep the creation year more consistent and more readable for visualization software, I removed "ca." and only kept the figures in the creation date columns. This could affect the correctness of the time period of the artworks in the visualizations.

Currency

The currency of the artwork prices that are displayed on Artsy is different, though most of them are marked as 'US$'. For the consistency of the dataset, I converted other currencies to 'US$' by calculating the prices based on the current exchange rate and then corrected them in the dataset.

Constant label changing

Due to the anti-crawler characteristic of artsy.com, the web scraping code I shared needs to be changed based on the most recent HTML script of artsy.com. This could affect the correctness of the artworks' prices in the visualization.