



Painting Recommender for The Met

Christine Chen



Motivation





Easter Monday | Willem de Kooning | 1955-56

Easter Monday, named for the day on which the painting was completed in 1956, is the largest of ten grandly scaled paintings de Kooning exhibited at Sidney Janis Gallery that spring. In his review of the exhibition in *Artnews*, critic Thomas Hess likened the works to "abstract urban landscapes;" indeed, in its highly textured surface, swooping lines of paint, and glimpses of newspaper transfers, Easter Monday seems to reference the whirling pace and gritty detritus of the modern city. The transferred newsprint, particularly visible at the bottom and top right, remains aligned with the canvas's edges, enforcing the tenuously grid-like structure of the painting. Shot through with Rubensian flesh-like pinks and vivid blues and yellow, Easter Monday is a tour de force of de Kooning's 1950s style.

Modeling Approach

term frequency-inverse
document frequency (tf-idf)



non-negative
matrix
factorization (NMF)



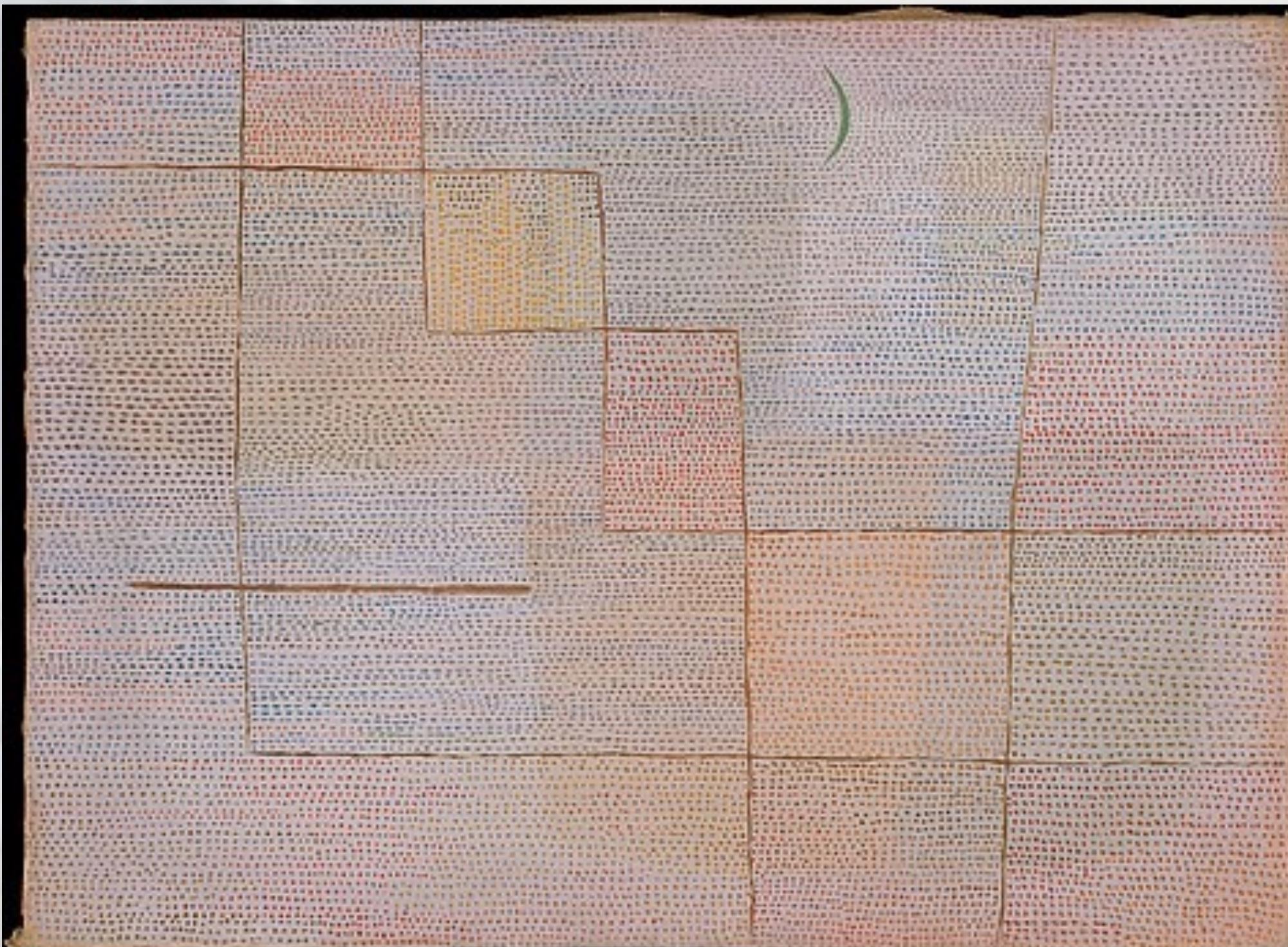
cosine similarity

Modeling Approach

Label:

Paul Klee (b. 1879)
Clarification, 1932

Oil on canvas

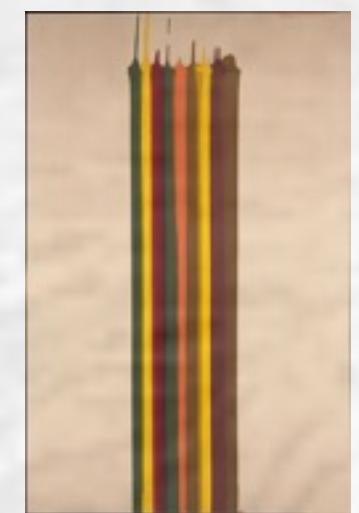


Clarification | Paul Klee | 1932

Description:

In October 1931, Klee began teaching at the Düsseldorf Academy. He felt much at ease in that city, his well-being reflected in his adaptation of a pointillistic, loose mosaic style. But Klee's merry "Pointillism" was different from the method of Georges Seurat and his followers, who broke down the imagery of their paintings into tiny dots of pure color. Klee's works, rather, seem "built up" with row upon row of blocklike units of color chosen without regard to optical laws. In *Clarification*, due to the very small size of the dots of color, the foreground turns into a transparent screen through which the background is visible. Klee divided the ground into large areas of buff and grays, over which he drew the brown geometric design and the green crescent. Then he covered the entire surface with thousands of tiny color dots in even horizontal rows.

Modeling Approach



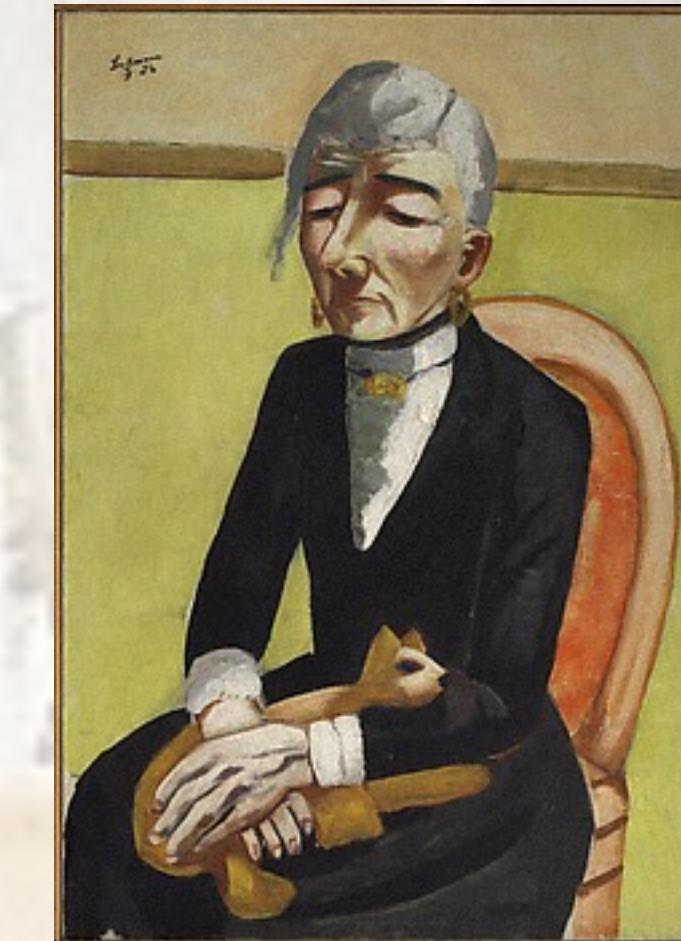
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Example



Maria | Kees van Dongen | 1907-10



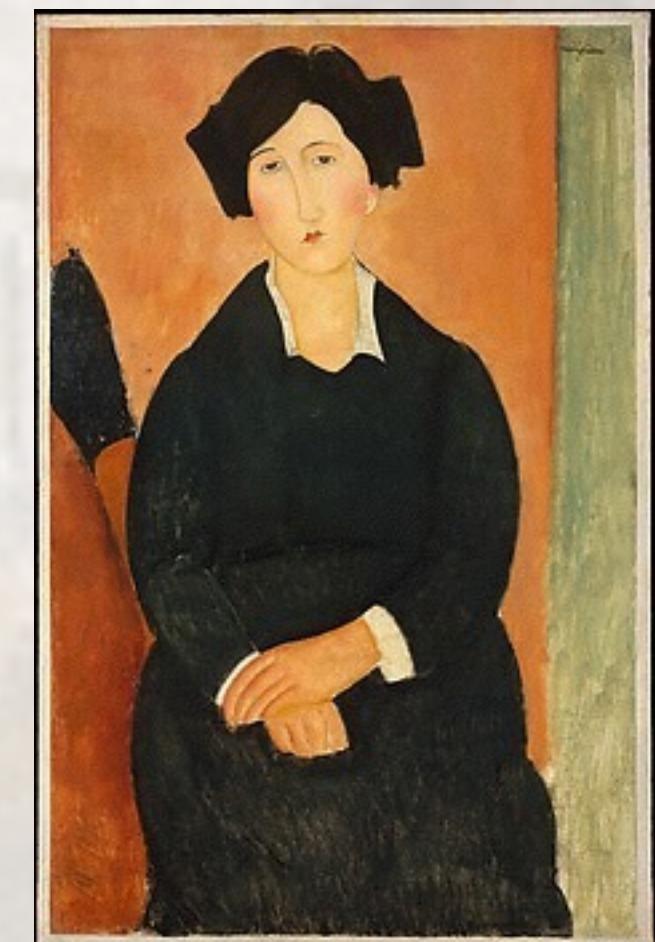
The Old Actress | Max Beckmann | 1981



A North Carolina Mountain Woman
| Lucy M. Stanton | 1916

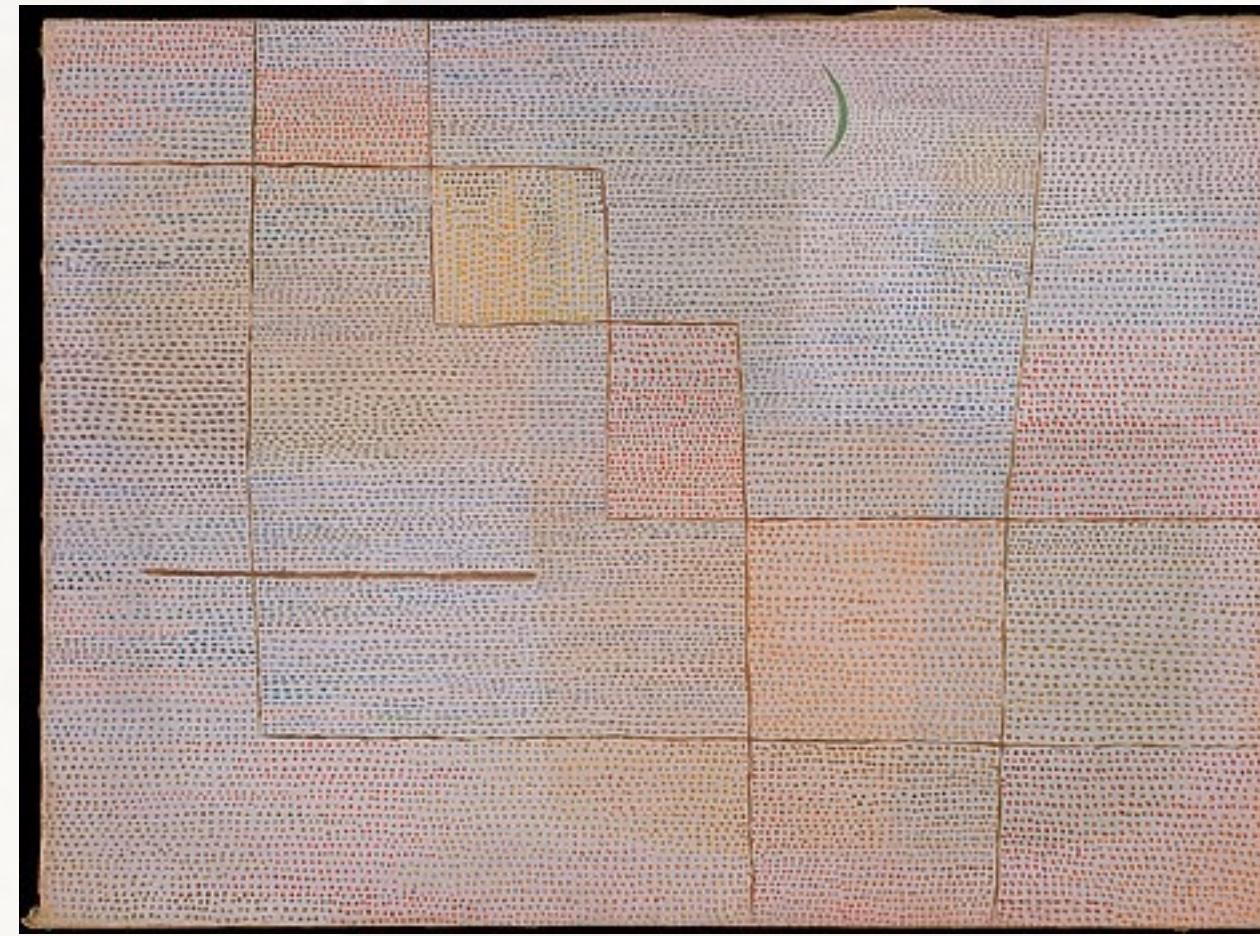


Tilla Durieux | Auguste Renoir | 1914

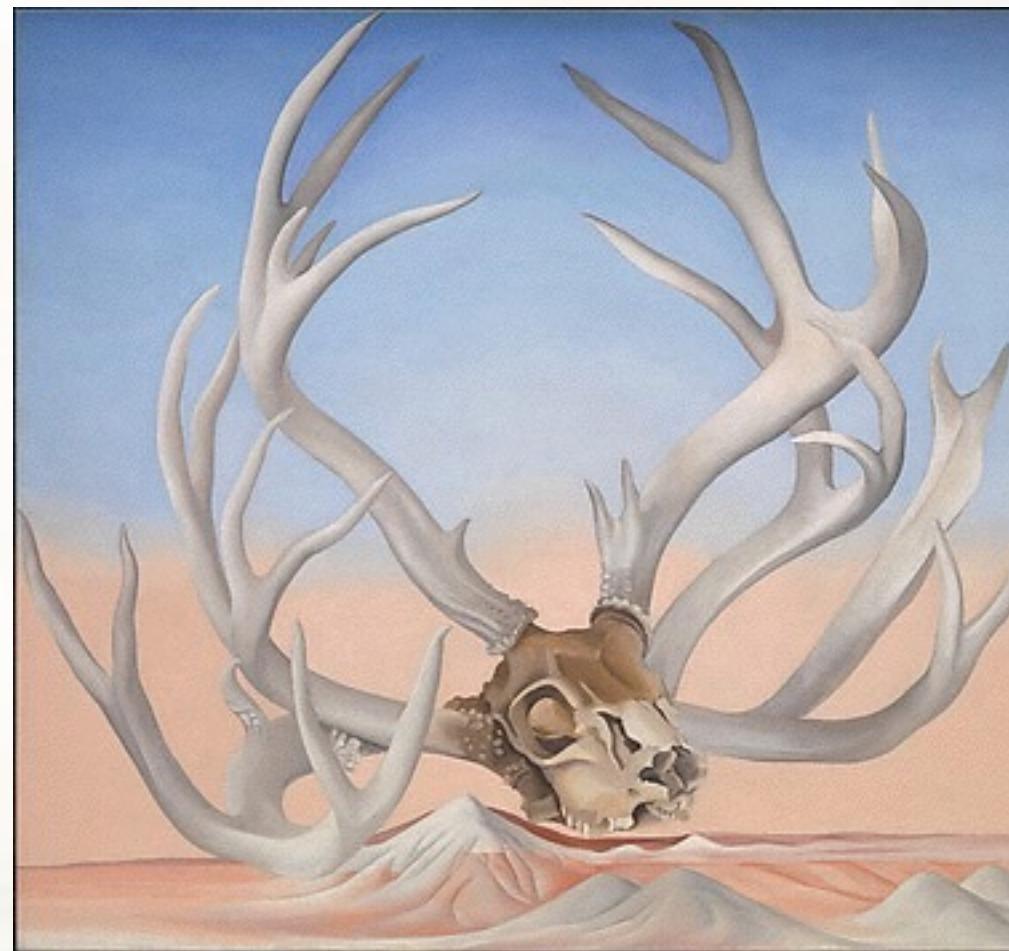


The Italian Woman | Amedeo Modigliani
| 1917

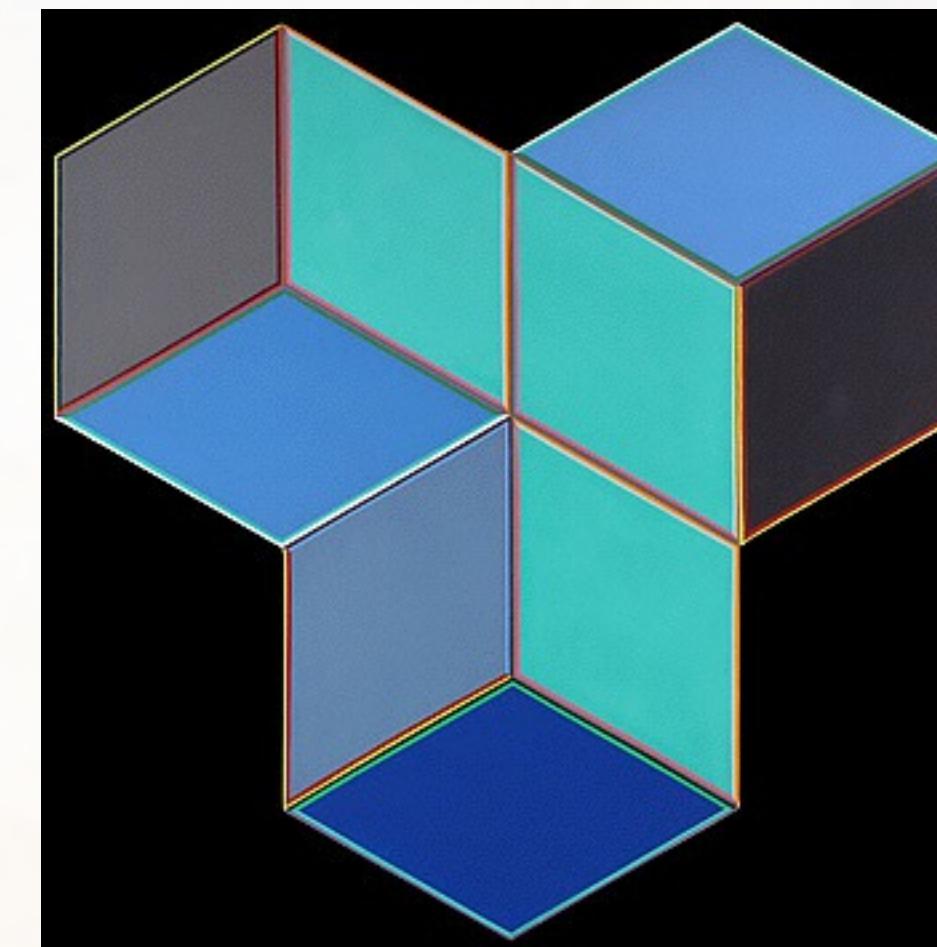
Example



Clarification | Paul Klee | 1932



From the Faraway, Nearby | Georgia O'Keeffe | 1937



Untitled | Al Loving | 1971

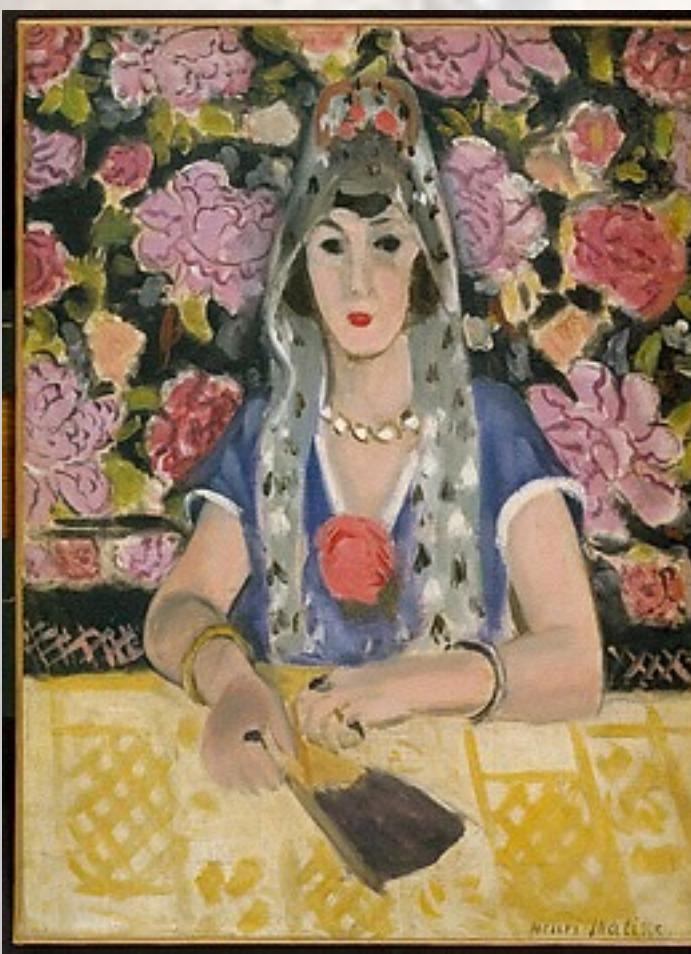


Still Life | Paul Klee | 1927

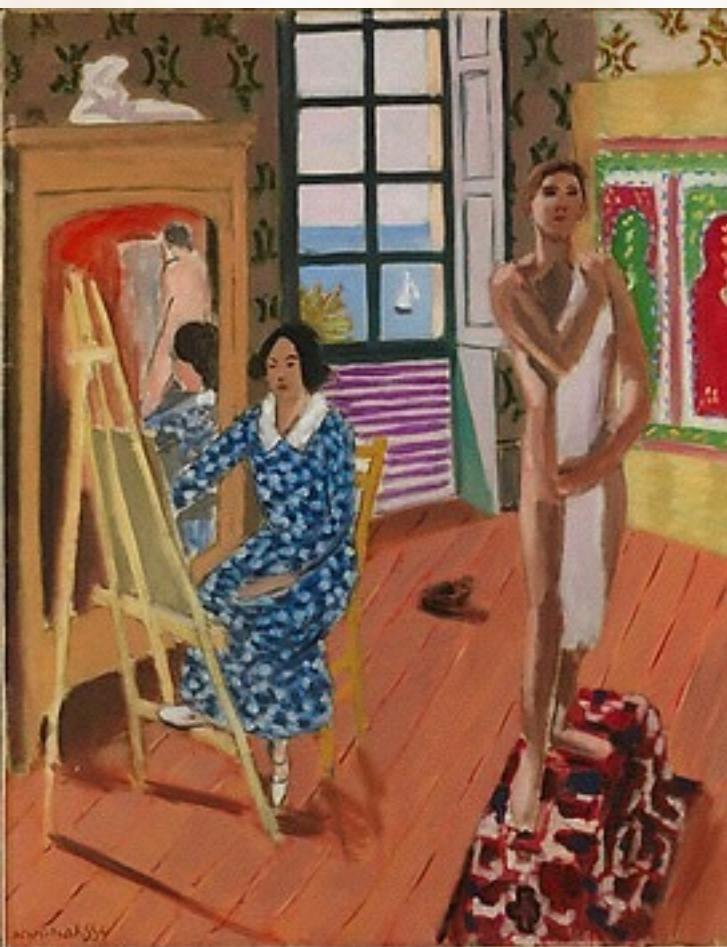


Tomorrow is Never | Kay Sage | 1955

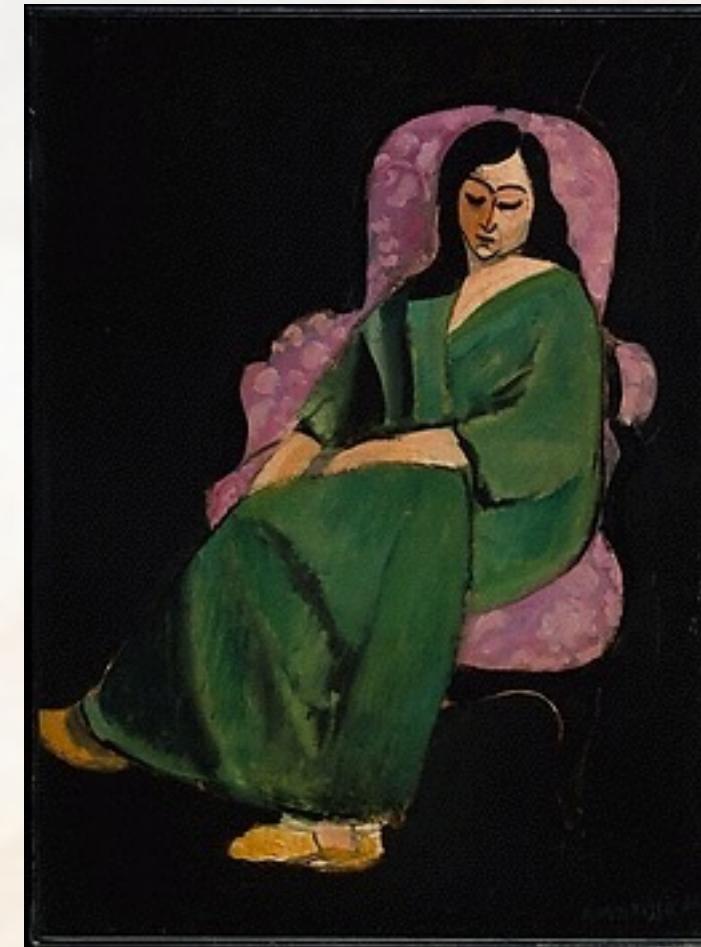
Example



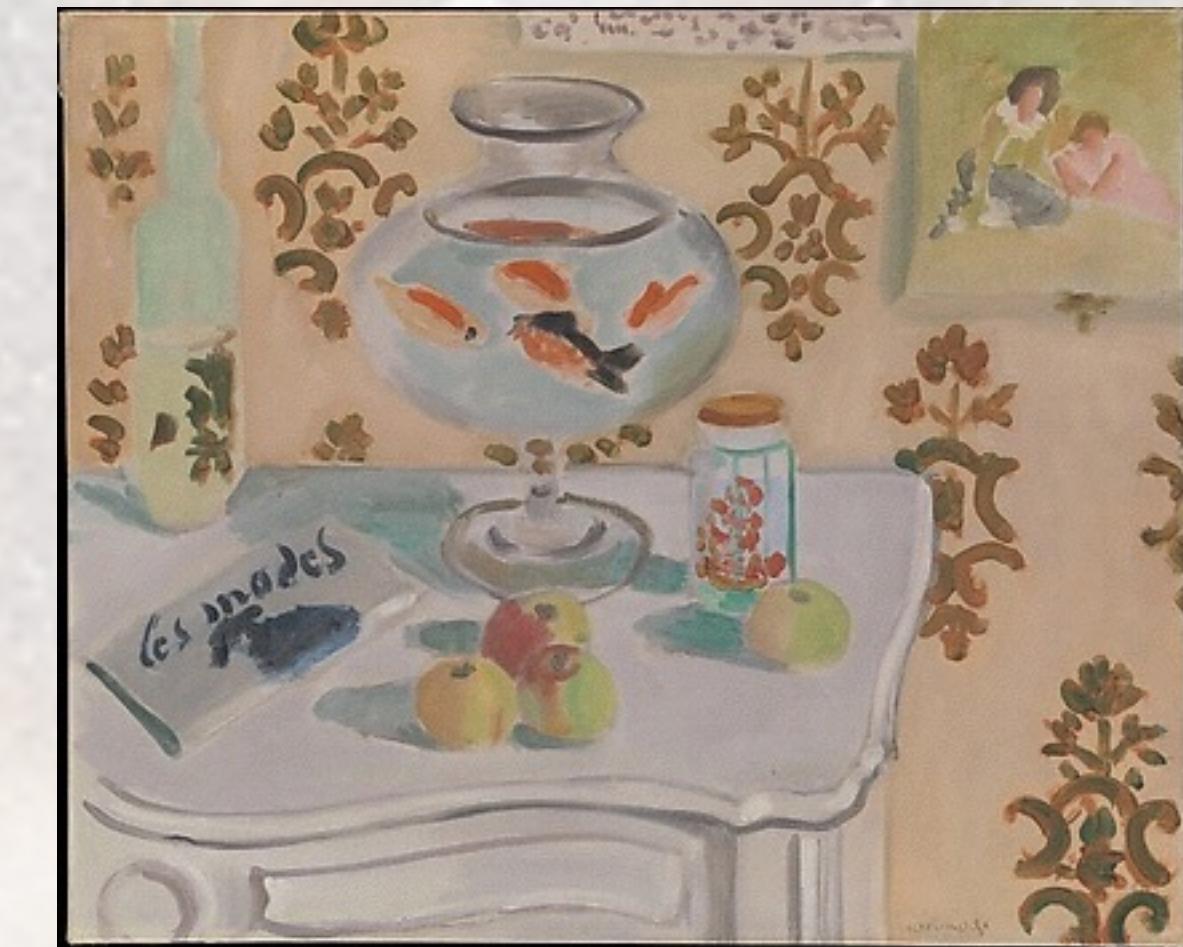
Espagnole: Harmonie en bleu (Spanish Woman: Harmony in Blue) | Henri Matisse | 1923



The Three O'Clock Sitting | Henri Matisse | 1924



Laurette in a Green Robe, Black Background | Henri Matisse | 1916



The Goldfish Bowl | Henri Matisse | 1921-22



Odalisque, Harmony in Red | Henri Matisse | 1926-27

Summary

Content-based recommendation system

Premise:

Topic modeling with cosine similarity can be used as recommender for paintings.

Purpose:

It narrows the selection of art pieces. User can explore interests within this limited selection.

Thank You



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