Title:

Quantifying Collection Lag in World Modern and Contemporary Art Museums

Extended abstract:

This research delves into the intriguing realm of museum collection strategies in contemporary art institutions, shedding light on the multifaceted dynamics of institutional behavior. While the pivotal role of museum acquisitions in shaping art markets and influencing artistic careers has been acknowledged, the lack of accessible data and collaborative efforts between museums, researchers, and curators has hindered comprehensive comparisons of acquisition patterns among various contemporary art museums. To bridge this gap, our study presents a meticulous analysis of data collected from 20 renowned world contemporary art museums. We focus on descriptive statistics related to artwork creation dates, collection acquisition dates, and the corresponding age of artists at the time of artwork creation and acquisition. Through this in-depth examination, we unveil remarkable characteristics that distinguish individual contemporary art museums and highlight the spectrum of conservativeness exhibited in their collection formation strategies. The most significant finding of this research is the identification of a phenomenon termed the "mean museum collection lag," which spans from 3 to 35 years across the studied institutions. This lag signifies a more conservative acquisition approach in museums with longer periods between artwork creation and acquisition. Employing visual analysis as a method to compare artist and artwork age at the moment of acquisition, we discern various institutional behaviors, including continuous acquisitions, systematic procurement of older art objects over time, and rapid bursts of collecting artworks by a single author. By presenting this kaleidoscope of detailed collection histories in contemporary art museums, our study transcends traditional qualitative examinations. Furthermore, our research ambitiously builds a bridge between art, art history, data analysis, and computer science, thereby catering to the interests of museum professionals, art creators, collectors, and researchers alike. This comprehensive exploration of museum collection strategies promises to enrich the understanding of the contemporary art scene and provide valuable insights for stakeholders in the art world.

Overall, the participating museums were established in different centuries, which shapes their collections. Younger museums have mostly contemporary art in their datasets (Kiasma, M+, Vancouver Art Gallery, Museum of Contemporary Art Tokyo, Queensland Art Gallery), while other museums collected modern and contemporary art (Serralves, ZKM, MACBA, MoMA), while yet other museums also acquired artworks from previous times (Kunsthaus Zurich, Tate, Van Abbemuseum, Moderna Museet, Belvedere 21, The Centre Pompidou, The National Museum of Norway, Museo Reina Sofía, MET).
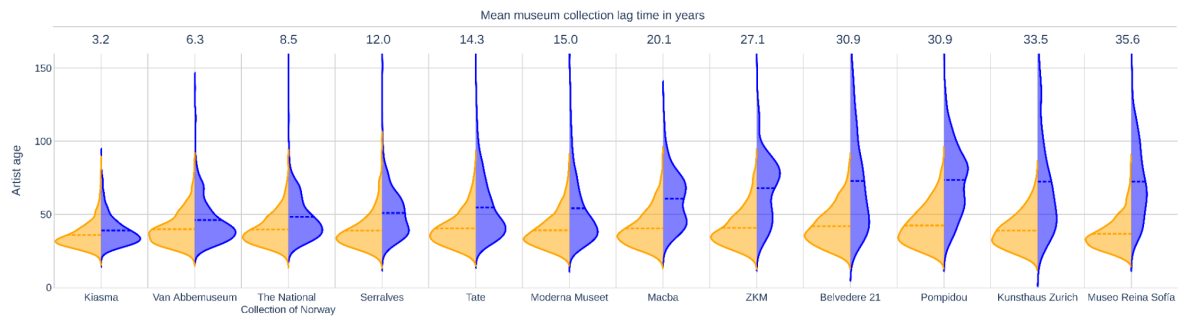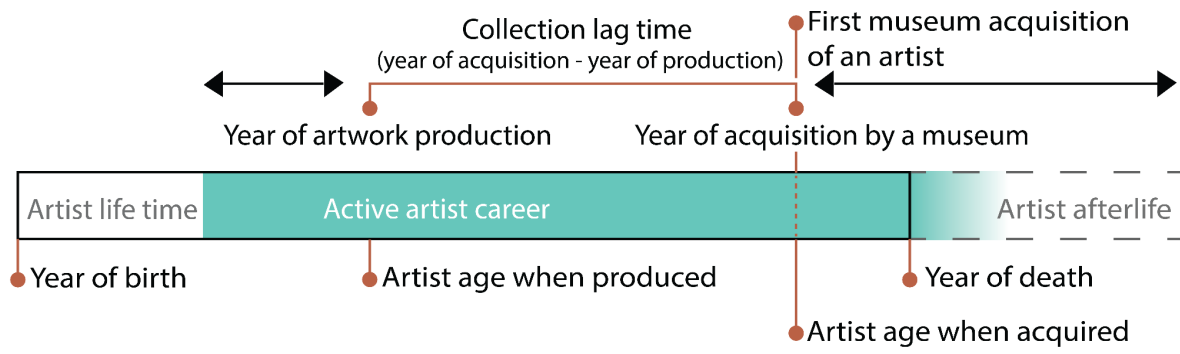
Figure 1: Schema of analyzed data points(red).

Figure 2: Split violins indicating in 12 European museums the density of artworks created (yellow) and acquired (blue) at artist age in their first acquisition. The difference of horizontal lines in each violin defines the median collection lag, increasing in museums from left to right. Above the violins, the index of "mean museum collection lag" is given for each museum in years.