## Modelling the Art Historical Canon: The Use of Dynamic Computer Models in Deconstructing the Canon

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Abstract: There is a long tradition of visually representing the art historical canon, in schematic overviews and diagrams. This is indicative of the desire for scientific, 'objective' knowledge of the kind (seemingly) produced in the natural sciences. These diagrams will, however, always retain an element of subjectivity and the modelling methods colour our perception of the represented information. In recent decades visualisations of art historical data, such as hand-drawn diagrams in textbooks, have been extended to include digital, computational tools. These tools significantly increase modelling strength and functionality. As such, they might be used to deconstruct and amend the very problem caused by traditional visualisations of the canon. In this paper, the use of digital tools for modelling the art historical canon is studied, in order to draw attention to the artificial nature of the static models that art historians are presented with in textbooks and lectures, as well as to explore the potential of digital, dynamic tools in creating new models. To study the way diagrams of the canon mediate the represented information, two modelling methods have been used on two case studies of existing diagrams. The tree diagram Stammbaum der neudeutschen Kunst (1823) by Ferdinand Olivier has been translated to a social network using the program Visone, and the famous flow chart Cubism and Abstract Art (1936) by Alfred Barr has been translated to an ontological model using Protégé Ontology Editor. The implications of the modelling decisions have been analysed in an art historical context. The aim of this project has been twofold. On the one hand the translation process makes explicit the design choices in the original diagrams, which reflect hidden assumptions about the Western canon. Ways of organizing data (for instance ordering art according to artist) have come to feel natural and neutral and implicit biases and the historically uneven distribution of power have resulted in underrepresentation of groups of artists. Over the last decades, scholars from fields such as Feminist Studies, Postcolonial Studies and Gender Studies have considered this problem and tried to remedy it. The translation presented here adds to this deconstruction by defamiliarizing the traditional models and analysing the process of reconstructing new models, step by step, taking into account theoretical critiques of the canon, such as the feminist perspective discussed by Griselda Pollock, amongst others. On the other hand, the project has served as a pilot study for the use of digital modelling tools in creating dynamic visualisations of the canon for education and museum purposes. Dynamic computer models introduce functionalities that allow new ways of ordering and visualising the artworks in the canon. As such, they could form a powerful tool in the training of new art historians, introducing a broader and more diverse view on the traditional canon. Although modelling will always imply a simplification and therefore a distortion of reality, new modelling techniques can help us get a better sense of the limitations of earlier models and can provide new perspectives on already established knowledge.

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