

## Practices of programming amateur computer graphics in the 8-bit microcomputer era

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The emergence of the 8-bit home computers in the early 1980s had a substantial impact on amateur creative practices with available graphic and sound capabilities of such hardware. With my paper, I explore a range of creative practices related to visual culture artifacts, both static graphics, and animations made with such computers. While doing so, I am particularly focusing on the availability of knowledge necessary for an engagement in such practices and its impact on shaping aesthetic conventions.

Microcomputers of the era such as the Apple II, Commodore 64, ZX Spectrum, CPC Amstrad, and BBC Micro offered easily programmable graphic chips. Moreover, such computers were accompanied by easily available hardware reference manuals and

tutorials (Fig. 1) that provided detailed descriptions of what such chips can do and how they can be efficiently programmed. The availability of such easy-to-understand hardware and knowledge formed an ecosystem for the creation of generative art through program code.

With my paper, I investigate what kind of digital tools and relevant knowledge on using them were available for those interested in experimenting with computer graphics outside of professional computer graphics art worlds. I argue that the available knowledge that came from available hardware manuals, books on computer graphics, and computer magazine sections on programming graphics had both technical and aesthetic aspects.

This is an academic paper that will be supported by a multimedia presentation that demonstrates some examples of the aesthetic of programmable graphics made by amateurs. This paper communicates selected research findings from my ongoing research project on amateur programming culture and creativity in the 8-bit microcomputer era. As source material for my paper, I use hardware reference manuals, programming books dedicated to computer graphics and animations, tutorials in computer magazines, and preserved programs that include relevant graphics and animation.

supported by a 4-year research grant from the National Science Centre of Poland. He has published articles in *IEEE Annals of the History of Computing*, *International Journal of Communication*, and *History and Technology*.

He holds MA titles in sociology and art history (Warsaw University) and a Ph.D. in cultural studies (Warsaw School of Social Sciences and Humanities). Recipient of grants and fellowships from the Volkswagen Foundation, the Center for Contemporary History Potsdam, the Netherlands Institute of Advanced Study, and the Andrew W. Mellon Foundation. His research interests include the cultural history of the Cold War, the history of home technologies, and the history of computing. Currently, he works on the history of amateur programming and neo-liberal socio-economic order in the 1980s. His current project is

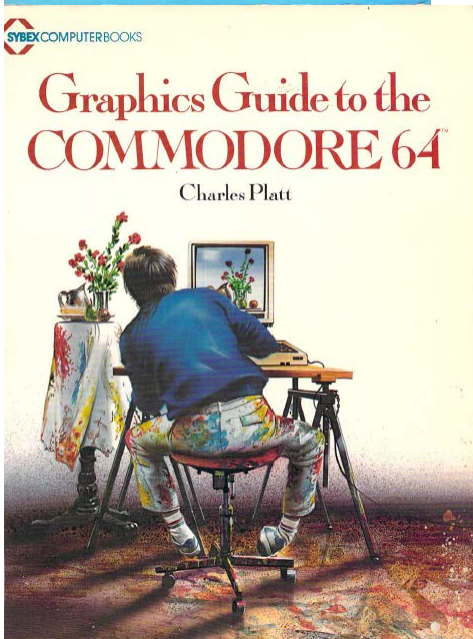
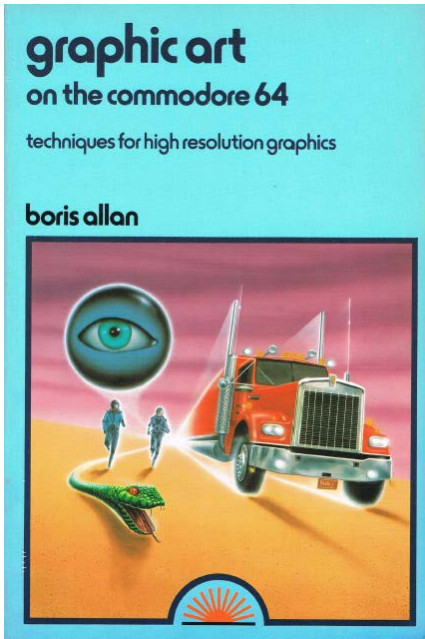


Fig. 1. Examples of books on programming graphics for 8-bit microcomputers