Mechanisation and Automation in the Drafting Room

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This study examines the development of instruments used in architectural drawing, ranging from T-squares, compasses and set squares to the use of computers. Vitruvius distinguished between *organa*, tools as extensions of the hand, and *machina*, tools requiring the involvement of many. Today we can understand the latter category as a complex system into which users are absorbed, such as computers. Yet, one may also see the construction system of drafting board, fixed paper, parallel rule and set square as another machine that was already in use by the Renaissance when architects first left the construction site for the drafting room. This distinction of tools leads to differences between mechanization and automation. The first introduction of a graphic interface with a computer in 1963 reveals the origins and basis of following computer-aided design programs. By examining the history of drawing instruments, we will examine the often-debated proposition that either the computer is 'just another tool' or that the computer is a 'revolutionary new step'.

Biographies:

Paul Emmons is a registered architect and professor at Virginia Tech where he directs the PhD program in Architecture + Design at the Washington-Alexandria Architecture Center. He earned a PhD from the University of Pennsylvania, a Master of Architecture from the University of Minnesota, and has widely published on architectural drawing practices.

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