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Thomas Drucker* (druckert@uww.edu). *Bounded in a Nutshell of Straightedge and Compass*. Preliminary report.

David Richeson's 'Tales of Impossibility' is a recent reminder of the long history of straightedge and compass constructions. Richeson points to the uncertainty surrounding the origin of that practice, but its influence did persist for thousands of years. Even those who came up with constructions that went beyond those tools recognized that this involved 'breaking the rules'. By the time the classical problems were solved in the eighteenth and nineteenth centuries, the limitations were being taken for granted. It can be asked whether there was any philosophical basis for the original selection of those tools, at least based on what we know of Plato's comments on geometry. Then one can speculate on whether there was any residual philosophical basis hundreds or thousands of years later. We shall suggest some philosophical basis for the original specification of those tools and then a time by which that had run its course. (Received September 14, 2020)