

Abstract

Bloodstain pattern analysis has seen much development in the past few years due to recent scrutiny of the practice. Before this resurgence in research, there had been little expansion on the subject in the decades since it became a staple field in forensic science. This proposal aims to contribute to these new developments and assist future studies into bloodstain pattern analysis. We outline the design and use of a model that would be useful for crime scene reconstruction. This model would act as an improved replacement for the vessel that contains a blood sample before it is expelled onto a surface. The design consists of a modified dialysis cartridge that more accurately depicts the complexities of the human body than the models typically used in reconstruction. This modified cartridge will be utilized in a backspatter experiment and have the results compared to real world examples to determine the viability of this vessel.