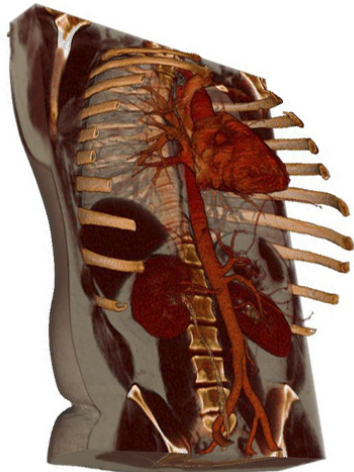


Adaptive Cross-sections of Anatomical Models

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Medical illustrations have been used for a long time for teaching and communicating information for diagnosis or surgery planning. Illustrative visualization systems create methods and tools that adapt traditional illustration techniques to enhance the result of renderings. Clipping the volume is a popular operation in volume rendering for inspecting the inner parts, though it may remove some information of the context that is worth preserving. In this paper we present a new editing technique based on the use of clipping planes, direct structure extrusion, and illustrative methods, which preserves the context by adapting the extruded

region to the structures of interest of the volumetric model. We will show that users may interactively modify the clipping plane and edit the structures to highlight, in order to easily create the desired result. Our approach works with segmented volume models and nonsegmented ones. In the last case, a local segmentation is performed on-the-fly. We will demonstrate the efficiency and utility of our method