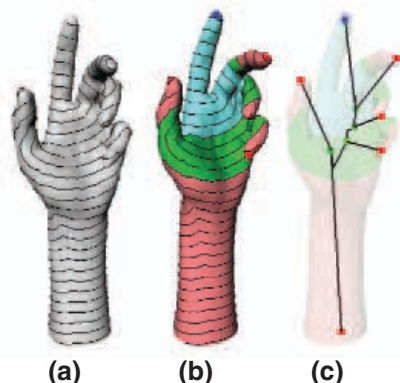
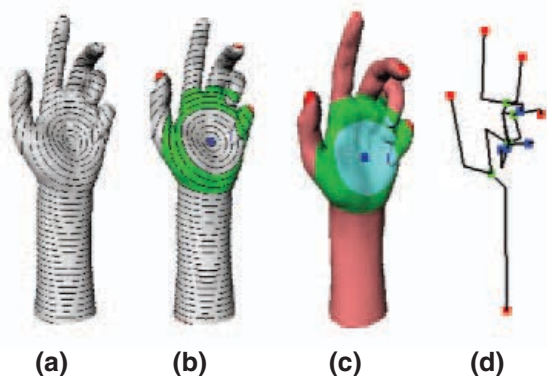


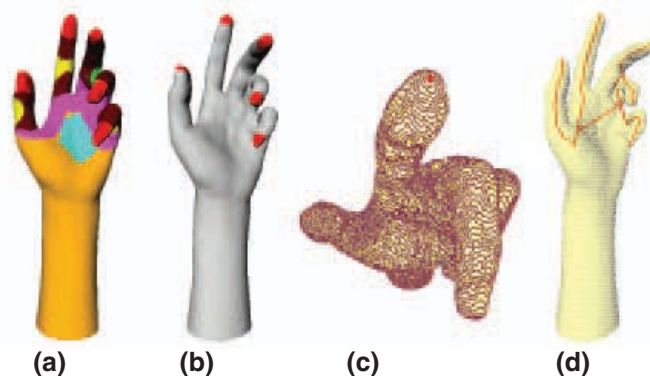
**Figure 6. (a) Topology changes with respect to the direction  $f$ , (b) Reeb graph with a minimal number of surface sections.**



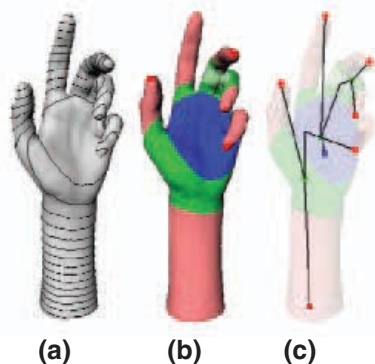
**Figure 9. A graph-like representation of the centerline proposed in[20].**



**Figure 7. The characterization process of the mesh with respect to the distance from the barycentre, (a), (b), (c), and its Reeb graph, (d).**



**Figure 10. (a) Vertex classification based on Gaussian curvature (b) high curvature regions are depicted in red; (c) topological rings expanded from the centres of high curvature regions (d) obtained graph.**



**Figure 8. The graph representation with respect to the geodesic distance in [19].**  
**Figure 9. A graph-like representation of the centerline proposed in[20].**