## STUDY OF THE POSSIBLE ANATOMICAL VARIATIONS OF MANDIBULAR PREMOLARS COMPUTERIZED 3D RECONSTRUCTIONS K.LYROUDIA,G.PAPPA AND I.PITAS HELLENIC DENTAL JOURNAL no. 9,pp. 23-28,1999

Ten mandibular premolars were proceeded for a 3D reconstruction. The teeth were embedded in a two-phase polyester resin and serial cross-sections were taken by using a special microtome (Isomet, Buehler, IL, USA). Each section was studied under a stereomicroscope (Stemi 2000-C, Zeiss, Wetzlar, Germany) and the image of each section was digitized by a video camera which was adapted to a stereomicroscope. The following procedures were followed: extraction of internal boundaries of the teeth, alignment of the sections, 3D representations using the triangulation method, by using EIKONA 3D. The final representation was accomplished through color addition and shading of the previous wire frame model. The materials used for the surface rendering were purple glass for the outer surface and yellow matte for the pulp

chamber.