

## **Book Review**

Roth Orthodontics Philosophy and Case Reports

Published by GAC International, Inc.

By: Roth Williams Study Club of Japan

The book, as the title suggests, outlines the diagnosis and treatment philosophy of Roth. Contributing to its contents are 23 of the 40 members of the Roth Williams Study Club of Japan, each having submitted comprehensive records of a completely treated case. The Roth philosophy in essence, as described in the text, aims at establishing clear-cut treatment goals which enhances diagnostic ability and improves the quality of treatment thereby reducing the risk of failure. One of the greatest claimed contributions towards the treatment philosophy is that of measuring condylar discrepancies. Roth regards condylar displacement as a major factor contributing to unstable treatment results. The mechanics used is a modified prescription of the Andrews straight wire appliance which uses a .022 inch slot size with overcorrections built into the setup to prevent anchorage loss during initial tooth movement and compensate postorthodontic settling.

Emphasized is the establishment of clearly defined treatment goals which are divided into 5 areas: facial esthetics, dental esthetics, functional occlusion, periodontal health and healthy temporomandibular joints. Facial and dental esthetics are mutually complementary. Listed are many dental esthetic factors to be considered, among which are coincidentally maxillary and mandibular midlines, level Curve of Spee, adequate coupling of upper and lower teeth, adequate inclination of anterior teeth, tooth exposure with lips relaxed and expansive smile and sagittal and transverse cant of occlusal plane. Shown and briefly described is the relationship of teeth in a correctly functioning occlusion, in occlusion, forward protrusion, and right and left lateral excursion. The likely effects of tooth movement on the periodontium and the level of supporting alveolar bone and attachment require careful evaluation prior to treatment. And finally, as mentioned earlier, the Roth philosophy pays much attention to stabilizing the condyle in its correct position in the fossa. Shown and described are the diagnostic tools for gathering information on the functioning of the temporomandibular

joint. Among the procedures discussed are facebow transfer, habitual occlusal bite registration, centric relation, mounting, condylar displacement measurements, habitual and central occlusal discrepancies and conversion, splint therapy, monitoring and recording of mandibular movements.

The rest of the volume (238 pages) are devoted to describing and illustrating detailed records of 23 magnificently treated malocclusions. The records in all instances include pretreatment frontal, oblique and lateral facial photographs, PA and lateral cephalograms, panoramic and submental vertex radiographs, intra-oral and plaster model photographs, condylar position indicator data, border movements, CO-CR, Ricketts and Jarabak analysis tracings, similar follow-up records during treatment which include hinge-axis mounting, gnathological tooth positioner set-up photographs and finally, comprehensive end of treatment records. The records represent a remarkable variety of malocclusions in children and adults. The number of photographs illustrating the 23 cases are abundant, numbering from approximately 100 to in excess of 200 in each instance. The comprehensive records which include the problem list, the treatment plan improvements during treatment, treatment mechanics and post-treatment commentary make the treatment easy to follow. The beautifully produced text and the results shown are a tribute to the members of the study group and to the disseminators of the philosophy, namely Drs. Ronald H. Roth and Bert E. Williams.

Alex Jacobson