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BOOK REVIEW

**Principles of Esthetic Integration.**

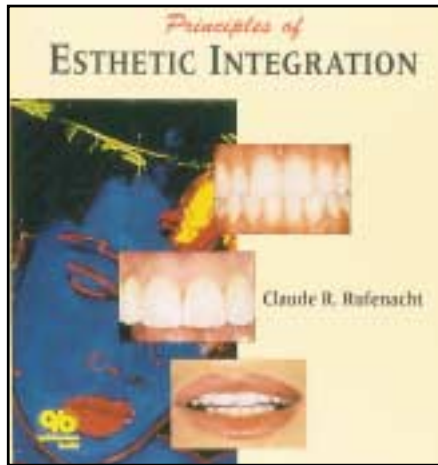
Claude R. Rufenacht. Quintessence Publishing Co., New Malden, 2000. (248pp. £82). ISBN 0-86715-369-5.

“However pleasing a restoration may be, it may well represent a perfect example of functional illusion and reveal itself as intrusive to the gnathic system”.

Robert Lee.

Claude Rufenacht published the seminal text *Fundamentals of Esthetics* in 1989. In the period since that publication, aesthetic dentistry has become a major growth area worldwide, and is now an important part of dental practice. Since aesthetics has been defined as the art and science of relating shapes and colours in a state of harmony, Dr Rufenacht's latest book is of relevance. Its stated objective is to help practitioners develop their own individual knowledge of aesthetic principles and to integrate dental elements harmoniously into the particulars of facial design.

Readers expecting a ‘how to do it’ technique manual are likely to be disappointed, but instead will be offered many illustrations of the results of techniques, demonstrating the principles of aesthetics and the wide variety of aesthetic problems which may be addressed. Chapter 1 addresses function and form, the dental components, the periodontal components and the perioral components, the relationship of all being considered to be a farrago of clinical, aesthetic, biometric, anthropometric or morphopsychological imperatives. In Chapter 2, biological integration is discussed, with useful sections on tissue management, including peri-implant tissue management, and the pontic-gingival unit. As could be anticipated



from the book title, the chapter on aesthetic integration is a *tour de force* and covers over 100 pages. The subject is discussed in depth, with the relevance of points, lines, planes and forms all being defined and addressed. The author includes many diagrams and clinical illustrations to put across his concepts. By contrast, functional integration receives fewer than 40 pages, but contains useful sections on occlusal stability, eccentric interferences and tooth wear control. The final chapter addresses the principles of aesthetic set-up, and includes an interesting section on the integration of the mandibular anterior segment – a sometimes neglected aspect of dental aesthetics.

This book includes a wealth of excellent illustrations – both diagrammatic and clinical, which help explain its concepts to the reader. Those practitioners developing an interest in the area of aesthetic dentistry may find the book of value, but might be well advised to read the author's first text before reading this one, as this latest book builds on the concepts and knowledge discussed in the earlier text.

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ABSTRACT

**HOW BIOCOMPATIBLE ARE THE NEWER DENTAL MATERIALS?**

Biocompatibility of a Resin-modified Glass-ionomer Cement Applied as Pulp Capping in Human Teeth.

A.B. Nascimento, U.F. Fontana, H.M. Teixeira and C.A. Costa. *American Journal of Dentistry* 2000; **13**: 28-33.

Although not referred to specifically in this article, the work of Kakehashi *et al.* is seminal to this research. They showed that pulpal inflammation only occurs in the presence of bacteria, and their work showed that, in the absence of bacteria, dental materials in contact with the pulpal tissues produced no significant reaction.

The workers in this study placed either calcium hydroxide or resin-modified glass-ionomer on pulpal exposures in virgin teeth scheduled for orthodontic extraction, after arrest of haemorrhage. Strict aseptic technique was undertaken, and the samples were stained for evidence of bacterial contamination. No pain was reported by the patients.

The results showed that calcium hydroxide placed on pulpal exposures initially caused a zone of coagulation necrosis, but eventually resulted in pulp repair and dentine bridging. Resin-modified glass-ionomer, however, caused a persistent inflammatory reaction, and no long-term healing. It appeared that this reaction was caused by the displacement of cytotoxic components of the cement into the coronal pulp. This reaction may not be sufficient to destroy the pulp completely, and appears to be worse following wet bonding, when the cement does not fully polymerize, facilitating the dissolution of irritant and cytotoxic elements.

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