Preface

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Plastination is a unique technique of tissue preservation developed by Dr. Gunther von Hagens in Heidelberg, Germany in 1978. In this process, water and lipids in biological tissues are replaced by curable polymers (silicone, epoxy, polyester) which are subsequently hardened, resulting in dry, odorless and durable specimens. The class of polymers used determines the optical (transparent or opaque) and mechanical (flexible or firm) properties of the impregnated specimen. Silicone rubber is used for plastination of whole specimens and thick body and organ slices to obtain a natural look and more or less flexibility. Epoxy resins are used for hard, thin, transparent body and organ slices. Polyester copolymer is exclusively used for hard brain slices to gain an excellent distinction between gray and white matter.

Since 1982 an international conference on plastination is held every other year. The present special issue of Ada Anatomica contains updated and expanded papers that were selected from presentations given at the 8th International Conference on Plastination, held in Brisbane, Queensland, Australia in July 1996.

From the number of articles dealing with epoxy or polyester plastination it can easily be recognized that the techniques of sheet plastination have become most important in human and veterinary anatomy, histology and pathology. Plastinated material is mainly used because of its vividness, particularly for the comparison of plastinated slices to MRI and CT scans, in teaching neuroanatomy and for plastination histology. Plastination can also be used for freezing movable and flexible tissues in different stages as used for the investigation of joints in orthopedic research. Since the procedures of plastination are still under development also a few technical articles dealing mainly with safety problems are included in this issue.

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