

Preface

This book is the Proceedings of the First International Symposium for Science on Form. The Symposium was held on November 26 through 30, 1985 at the University of Tsukuba, Japan. It was organized by The Society for Science on Form, Japan, and sponsored by the Foundation for Advancement of International Science (FAIS). The purpose of the Symposium was to discuss interdisciplinary science aspects of form.

“Form”, to exhibit its tremendous characters, depends on the material and the changes. But, it is the form that appears evident at once and endures. Form is absorbed from every field as media of information. Thirty years and more ago, interdisciplinary problems between earthethics and science were submitted to a symposium on Form in Nature and Art. The relation between form and function had been emphasized philosophically and psychologically.

In this quarter century, information theory had exactly decided figures, electronic computer had easily calculated graphics, and laser hologram had completely contained the objective image and reconstructed it.

In this Symposium, one part of the work covers the description of non-periodic phenomena, morphogenesis or evolution. Irreducible stubborn facts as diseases or social problems, or whatever else that could not be analyzed are integrally challenged to be systematized by computer simulation. The other part covers the finding of laws for determining how systems behave. Attention should be paid to pattern recognition, image processing and pattern formation. The Symposium proceeded with no parallel sessions, and participants from various fields made exciting discussions in an interdisciplinary atmosphere.

In conclusion, we all hope that the Proceedings will be fruitfull for the future of Science on Form. The dynamic aspects shall become a bridge between form and function.

Lastly, I would like to express my sincere thanks to the students of my laboratory as well as to the coordinators who assisted me in organizing this symposium. I could not have accomplished the many tasks involved in the various aspects of arranging this symposium without their assistance and encouragement. Especially, I would like to express my sincere thanks to Miss Setsu Sato who assisted me in this edition of Proceedings as well as in organizing the Symposium.

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