INTRODUCTION
CHAPTER ONE

SHAPE CREATION KNOWLEDGE IN CIVIL AND NAVAL ARCHITECTURE

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Abstract

This opening contribution will serve to define a few concepts and comparative methodologies for shape creation in the two disciplines of civil (terrestrial) and naval (maritime) architecture. It will thus help to set a platform for more specific individual case studies. Initially it will seek to find an understanding of what is “shape” in this cross-disciplinary context and how different types of shape might be classified. Then it will examine “the shape creation process” of conceptual design, construction and fabrication in terms of the knowledge required at each stage. This knowledge is intimately linked with the media of concept documentation and with the methodical tools of construction, fabrication and assembly. Thirdly, it will proceed to review important historical milestones at which by particular events or turning points the proximity in shape creation knowledge between the two disciplines became apparent and should be more closely investigated, i.e., it will identify candidates for more specific case studies. This survey will range from antiquity to the early modern age as does the whole book.

Overall this chapter will provide a first glance at the theme of the book in terms of three axes of comparison for historical shape creation developments:

- The time axis (genesis of shape creation knowledge)
- The geometric complexity and functionality axis (which shape knowledge when?)
- The axis of tools and methods of shape creation (which approaches when?)

Thus in summary this opening chapter will create a list of questions and try to systematize and classify the issues studied in this book. Its purpose will not and cannot be to provide all the finished answers.