

1- The Design Process
(According to Pahl and Beitz)

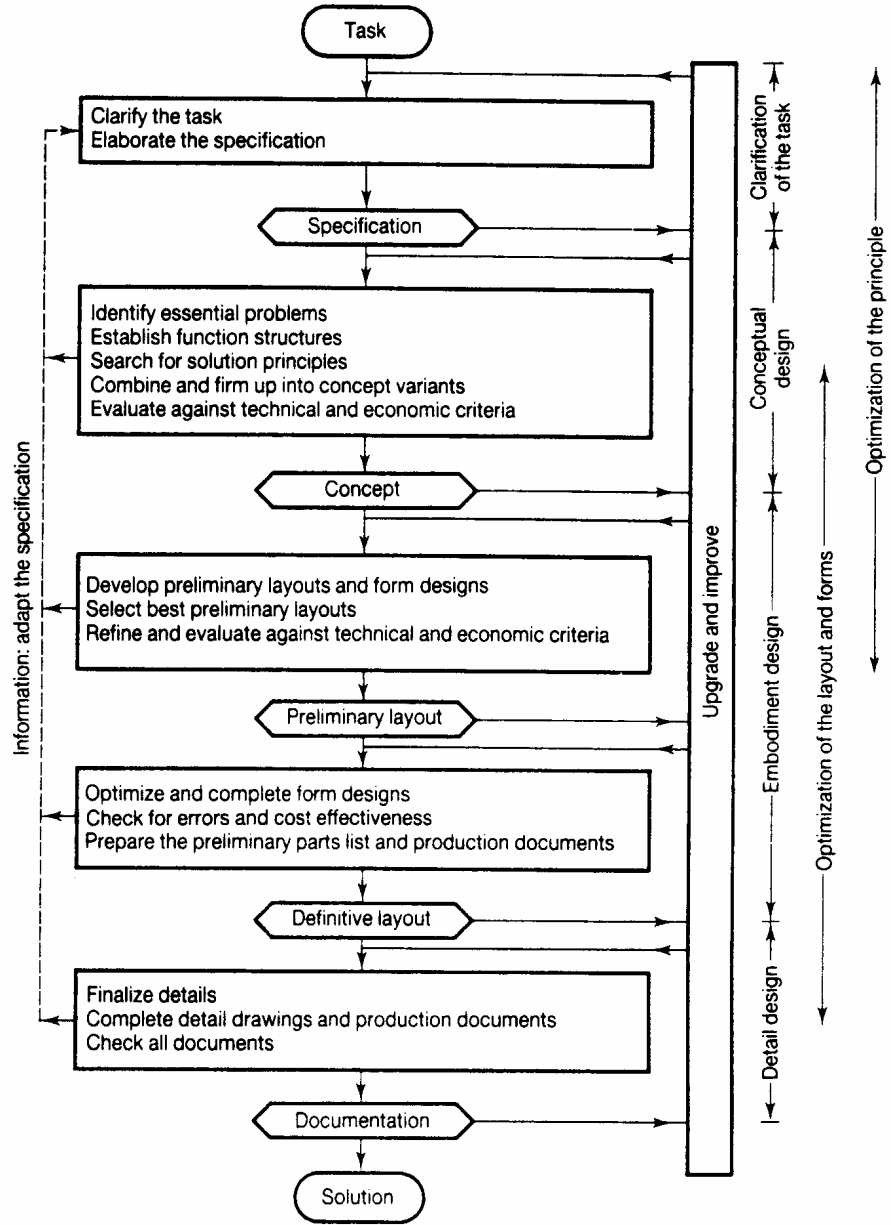


FIGURE 1.1
Steps of the design process according to Pahl and Beitz (1984). (Reproduced by permission of the publishers. © The Design Council.)

1- The Design Process
(According to Ohsuga)

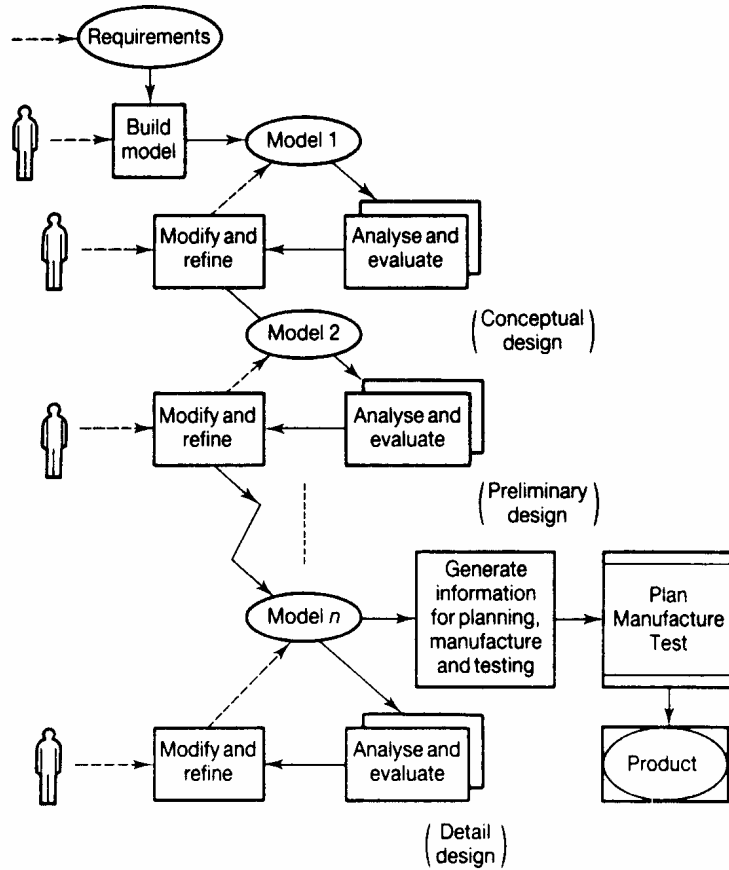


FIGURE 1.2
The design process according to Ohsuga.
(Reproduced from Ohsuga (1989) by permission of the publishers. © Elsevier Science Ltd. Kidlington, UK.)

2- Types of Design Model (Modelled Properties in Design)

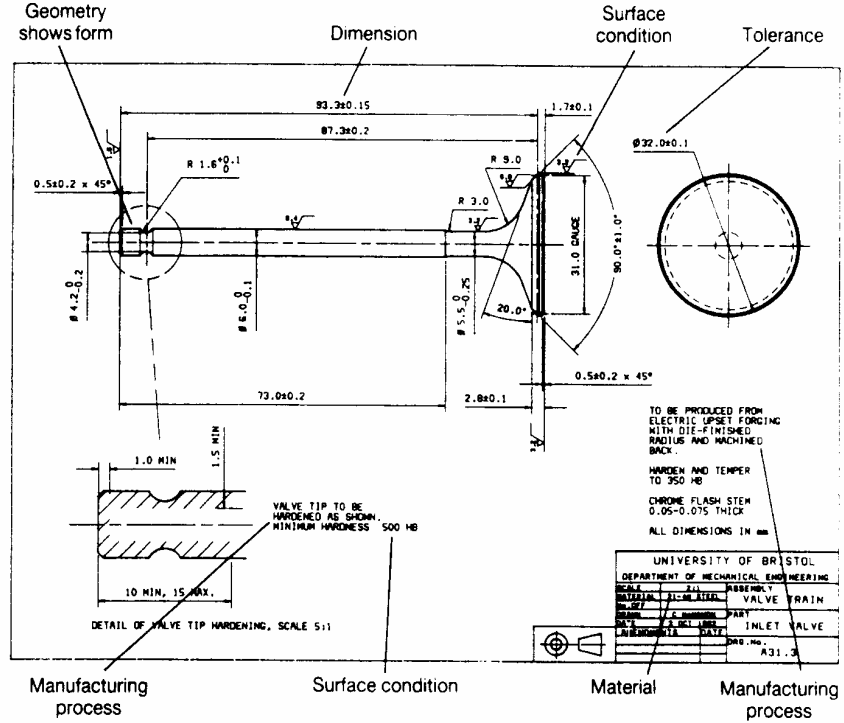


FIGURE 1.3 Modelled properties represented in a drawing.

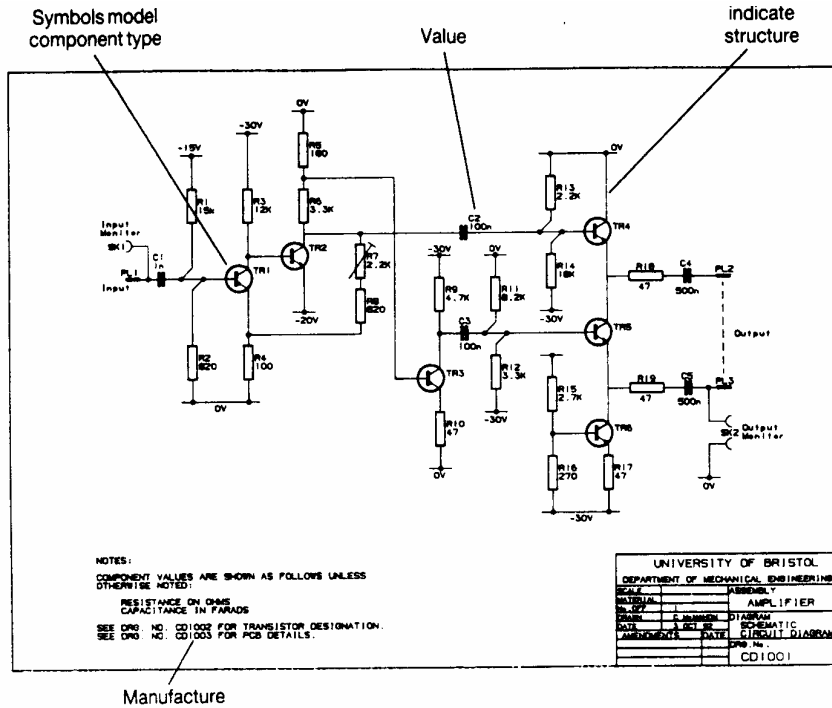


FIGURE 1.4 Modelled properties represented in a diagram.

3- Application of Design Models

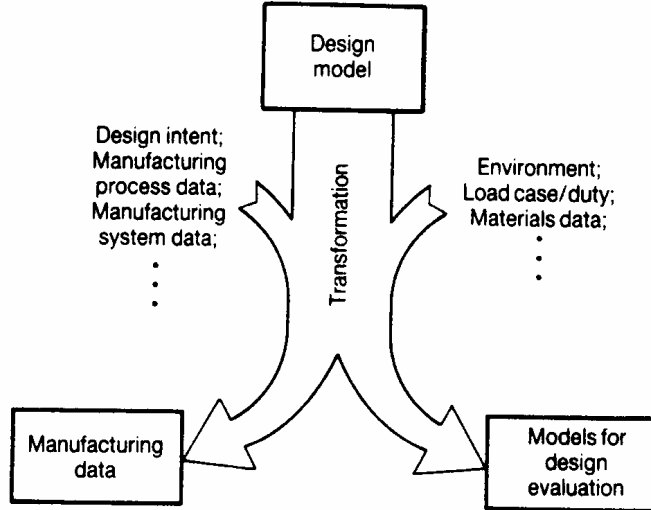


FIGURE 1.5
Model transformations in design.

Example of Evaluation of a Connecting Rod

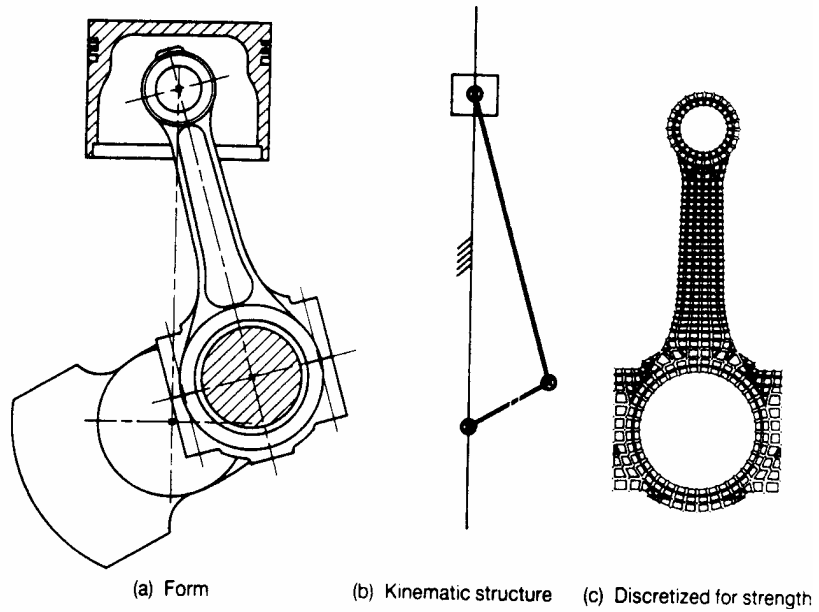


FIGURE 1.6
Representations in design evaluation.

4- Concurrent Engineering

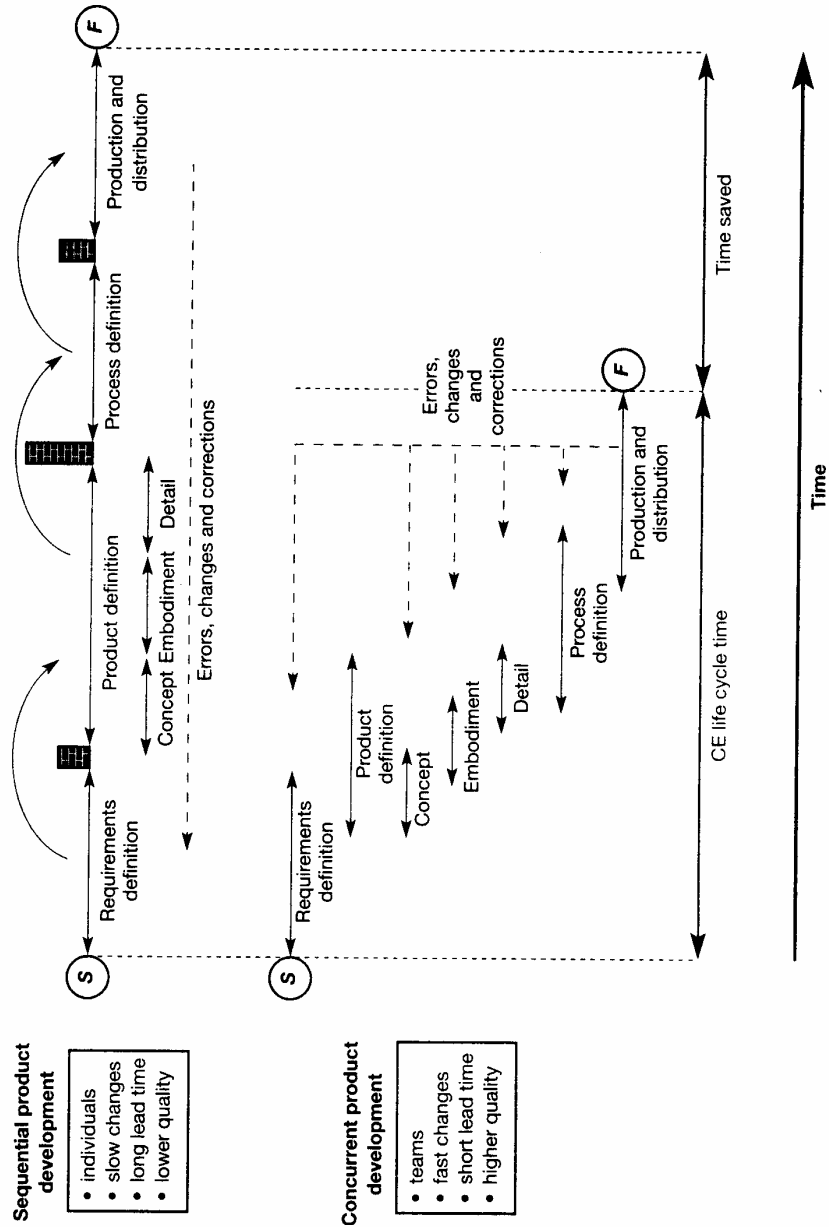


FIGURE 1.7
Sequential versus concurrent product development from start, S to finish, F.

5- Modelling Using CAD

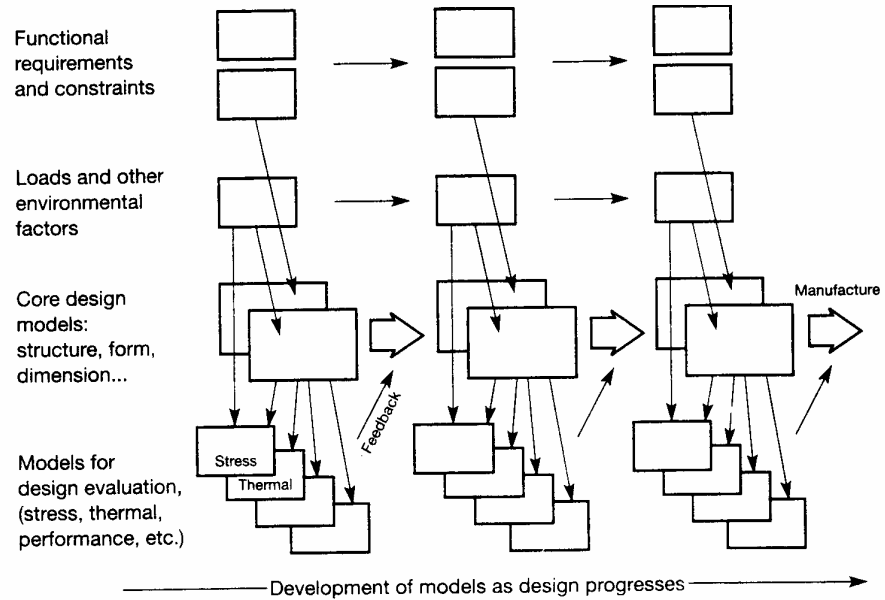


FIGURE 1.8
The use of models in design.

6- A CAD System Architecture

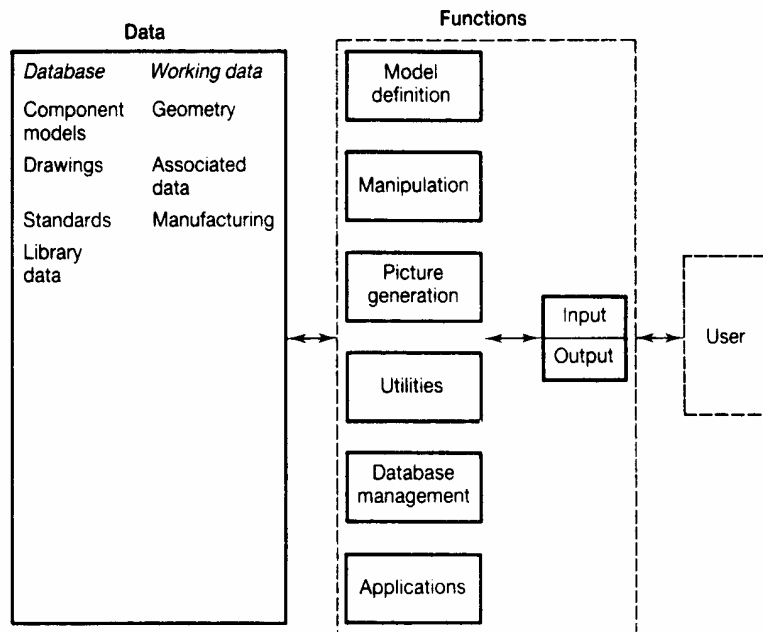


FIGURE 1.9
The architecture of a computer-aided design system.