It is often difficult therefore for design students to develop a process which enables them to relate appropriately to the other stakeholders in design. Rather it is easier for them to develop very personally self-reflective processes aimed chiefly at satisfying themselves and possibly their tutors. Thus, the educational studio can easily become a place of fantasy removed from the needs of the real world in which the students will work when they graduate. Not only does this tend to distort the skill balance in the process, but also the sets of values which the students acquire. Hubbard showed for example that town planners tend to acquire a different set of values about architecture to the public they represent and serve (Hubbard 1996). Similarly Wilson showed that architects use different evaluative systems to others about buildings (Wilson 1996). She also showed that this tendency is acquired during education. More disturbingly this work also revealed a strong correlation between preferences within each school of architecture and that these preferences are linked to style. Almost certainly design schools do not intend these effects so perhaps this indicates some significant problems with the studio concept of design education.

Throughout this book we shall see how many influences a designer must be open to and how many arguments there are about their relative importance in practice. Design education, like design itself, will probably always be controversial. Traditions have grown up which show structural variations not only between countries but also between the various design fields.

The extent to which the various design fields share a common process is a matter for considerable debate. That designers educated in each of these fields tend to take a different view of problems is less contentious. Furniture designers will tell you that they can spot furniture designed by an architect as opposed to someone trained in furniture design. Some say that architects design furniture to sit in space and not obstruct it; others will tell you that architects simply do not understand the nature of the materials used in furniture and consequently assemble it as they would a building. It is now commonly accepted that the United Kingdom construction industry is too divided and confrontational and that the various consultants and contractors involved tend to be combative when the client would like them to be co-operative. A recent report suggested a solution to all this would be to educate them all through some kind of common university degree only allowing specialisation later (Bill 1990). Such an idea, while well meaning, is fundamentally flawed. It assumes that there is a pool of 18-year-old students with more or less blank minds and personalities who might be attracted to take

such a degree. In fact we know the truth to be very different. Very few students applying to university apply for courses in more than one area of the construction industry. Similarly, very few students apply to study more than one design field. Thus, although architecture and product design seem very closely related there is little contact between the fields. The internationally acclaimed British product designer Richard Seymour is not surprised by this.

Although some architecture and some product designs look very close it is really the extreme end of the bow of the architecture tree rubbing up against a leaf at the extremity of the product design tree. We tend to think that they are very similar, but they are not. Fundamentally their roots are completely different.

Lawson (1994)

For Richard Seymour, the separation between these professions begins very early and crucially before the period of tertiary education which might be held responsible for the divide. His view is that these 'roots' are put down much earlier in life and that by the time we come to select our profession, the choice is effectively already made. Richard Seymour observes that most product designers come from a background of achievement in practical crafts like metalwork and woodwork.

The product designer is used to working with physical entities and the nature of materials and experiences them through seeing and feeling.

The English system of upper school education may aggravate these difficulties since pupils must choose to study only about four subjects. The universities then demand particular subjects before granting admission to each degree. Thus you might well be offered a place to study for a degree in architecture even if you had not studied mathematics, but almost certainly the same university would not grant you a place to study civil engineering. So the specialisation of students has already begun at school.

Whether it is the education system or the very nature of the students who select themselves, the atmosphere and social norms in the lecture theatres, studios and laboratories in the university departments of architecture, civil engineering and product design are different from the very beginning. The students speak differently, dress differently and have different images of themselves and the lives ahead of them. We must be cautious therefore in assuming that all design fields can be considered to share common ground. What is certain is that design is a distinctive mental activity, and we shall progressively explore its characteristics through this book.