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What is a designer  
: things.places.messages

fourth edition

## 1 What is a designer?

Design:

- v. to mark out; to plan, purpose, intend ...
- n. a plan conceived in the mind, of something to be done ...
- n. adaptation of means to end ...

*The shorter Oxford English dictionary*

Every human being is a designer. Many also earn their living by design – in every field that warrants pause, and careful consideration, between the conceiving of an action and a fashioning of the means to carry it out, and an estimation of its effects.

In fact this book is concerned mainly – not wholly – with a minority profession: of designers whose work helps to give form and order to the amenities of life, whether in the context of manufacture, or of place and occasion. The very clumsiness of this definition underlines the difficulty of using one word to denote a wide range of quite disparate experiences – both in the outcome of design decisions, and in the activity of designing. The dictionary reference above is selective; in practice the word is also applied to the *product* of 'a plan conceived in the mind'; not only as a set of drawings or instructions, but as the ultimate outcome from manufacture.

This is confusing. The difficulty becomes acute if the word 'design' is used without reference to any specific context – used, for instance, as a blanket term to cover every situation in which adaptation of means to ends is preceded by an abstract of intent – though designing is thus usefully distinguished from 'making' or from spontaneous activity. Beyond this point, the word must refer to recognizable products and opportunities, or become hopelessly abstract.

The design work to be discussed is now usually studied within the art and design faculty of a polytechnic, in a school of architecture, sometimes within a university, and – not least – in some of the smaller art and design colleges that may provide vocational courses. 'Distance-learning' institutions may provide study courses, neces-

sarily at a generalized level and without the benefit of studios and workshops. And of course, with or without the aid of such studies and evening classes, it is perfectly possible to study design simply by doing it. It should not be necessary to say that architects are designers (even if the matter is, occasionally, in doubt). Taking that old stand-by the 'broad view', it is convenient to group the work into three simple categories, though the distinctions are in no way absolute, nor are they always so described: product design (things), environmental design (places) and communication design (messages). Such categories blur some further necessary distinctions (as between, for instance, the design of industrial equipment and that of retail products in a domestic market) but can form a useful departure.

In the field of product design, the professional extremes might be said to range from studio pottery and textile design at one end of the spectrum to engineering design and computer programming at the other. This is a very broad spectrum and clearly there are serious differences at the extremes. In the communication field, a similar spectrum might range from, say, freehand book illustration, to the very exact disciplines of cartography or the design of instrumentation for aircraft.

Obviously, the more aesthetic and sensory latitude available within a particular range of design opportunities, the closer they resemble those offered by the practice of 'fine-art'. The less latitude, the closer design becomes to the sciences, and to fields in which the scope of aesthetic 'choice' is truly marginal. The design of a traffic light system has an aesthetic component, but it would need a very special definition of aesthetics to embrace the many determining factors that must finally settle the design outcome.

The situation for architects is usually held to be more straightforward; historically, their position has developed a fairly clear set of responsibilities. However, the complex changes in building types, and in industrialized building possibilities, have combined with other factors thoroughly to upset this stable picture. Indeed, the architect's work has been so undermined by that of specialists in surrounding territory (engineers, planners, sociologists, interior designers, etc.) that the profession is no longer so easy to identify. It is still reasonable to see an architect as a designer with a special-

ized technical and functional competence, and again a spectrum is discernible, ranging from very open and ephemeral design situations, to those as critical as the design of an operating theatre.

It is necessary to start somewhere, and this book takes a middle-zone standpoint. In most art schools this will include furniture, interior design, exhibition design, packaging, some wide areas of graphic and industrial (product) design, and some of the fringe territory leading into architecture. Students must make the necessary allowances to accommodate their own subject of study. This is chiefly necessary in part 2 ('Is a designer an artist?') and in some of the notes on procedure (parts 11-16) - or the studio potter will certainly feel that everything in this book is unduly complicated, whereas an architect might feel that there is undue simplification. All designers, however specialized should know roughly what their colleagues do - and why; not only to fertilize their own thinking, but also to make group practice effective, and for other reasons that will appear.

There are many roles for designers even within a given sector of professional work. A functional classification might be: impresarios, culture diffusers, culture generators, assistants, and parasites. Impresarios: those who get work, organize others to do it, and present the outcome. Culture diffusers: those who do competent work effectively over a broad field, usually from a stable background of dispersed interests. Culture generators: obsessive characters who work in back rooms and produce ideas, often more useful to other designers than the public. Assistants: often beginners, but also a large group concerned with administration or draughtsmanship. Parasites: those who skim off the surface of other people's work and make a good living by it. The first four groups are interdependent, necessary to each other. It should be added that any designer might shift from one role to another in the course of his working life, or even within the development of a single commission, though temperament and ability encourage a more permanent separation of functions in a large design office. Thus no value-judgement is implied here, except upon parasites who are only too numerous.

In small offices - or of course for independent freelance workers - there will be little stratification; 'the office' may tend to move in one direction or another, but the work within it will be less predictable for any one member - excluding, perhaps, secretarial or admin-

istrative assistants and often temporary draughtsmen. A 'consultant' is often a lone wolf who deals in matters of high expertise and or (paradoxically) of very broad generality. Designers will be found in every quarter, sometimes working independently, sometimes for government or local authority offices, or attached to large manufacturers, to retail agencies, to public corporations, and elsewhere in places too numerous to mention. Artisan designers will have their own workshop and perhaps their own retail outlet. There are a few design offices that will design anything from a fountain pen to an airport, and will therefore employ specialists from every field (including architects) - a rational development and a welcome one, but implying some genius for large scale organization which, in turn, may tend to level out the standard of work produced. (As numbers increase, it becomes a problem to keep work flowing through at a productive pace, yet have enough - not too much - to allow everyone a fair living.) Students usually need a few years' office practice before setting up by themselves; often this happens in small groups of three to six designers who will share office and administrative expenses.

Most designers are educated in a formal way by three-to-seven years in a design school (or school of architecture) leading to appropriate qualifications. Some have had unorthodox beginnings - by dropping in the deep end and learning to swim - but self-training may need sympathetic patrons, is apt to be patchy according to the opportunities that occur, and needs a special pertinacity. Apprenticeship rarely means more than training as a draughtsman. A few factories or retail firms may encourage employees who show design aptitude. Evening classes and correspondence courses are mostly directed at cultural appreciation or do-it-yourself horizons, but intending full-time students can build up a portfolio of work by this means.

A note of warning: the word 'design' appears freely as noun and verb, and where words like 'formal', 'realization', 'consciousness' are used without qualification, readers should examine the context and think for themselves. I have used the word 'student' suggestively; trying it for size.

There is a perfectly good sense in which a creative worker remains, perpetually a humble student of his subject. This is not to be

confused with the timidity of the 'permanent student' whose name haunts the lists of application for grants, research funds, and finally, minor teaching appointments. These must again be distinguished from the serious student of scholarly bent who 'reads' the subject and may make a distinctive contribution to theory or criticism. By the word 'student', therefore, I mean those who still question what they are doing, and ask why.

There is no word by the use of which sex-discrimination can be avoided. Readers must accept that when 'him' or 'man' is used, these words embrace both sexes (unless the text does draw a distinction). Women should not be deterred from course-work that includes the use of machinery and unfamiliar work with hand-tools. Invariably such skills are gained rapidly and practised with enthusiasm.

This, then, is the apparent situation of the designer and where this book begins. Returning to the statement that every human is a designer, and using it as a springboard: we do well to remember that designers are ordinary human beings, as prone as others (given half a chance) to every human weakness, including an exaggerated idea of their own consequence. Consider the following questions: Should a designer design for a factory in which he could never imagine working as an operative? Is design social-realist art? Is it handy to be in a state of moral grace when designing a knife and fork? Does design work justify its claims to social usefulness, or is it a privileged form of self-expression? Is a profession a genteel self-protection society with some necessary illusions? Should a designer be a conformist or an agent of change?

Those who feel that such questions are diversionary and a waste of time, should perhaps put this book down; others read on, but not for easy answers.

## 2 Is a designer an artist?

Before discussing this question, which involves describing a designer's work in some detail, it is necessary to look at the context in which it is usually asked. First, each country or culture has its own history, and this must affect how design functions now in any particular culture. The second difficulty is more widespread. It is the well-known but uneasy juxtaposition of 'fine-art' studies with 'design' subjects within a common faculty, excluding (normally) architecture. It would be out of place here to examine the history of this problematic and to some extent (now) arbitrary grouping of studies. It is enough to point out that the situation could be more realistically appraised if painting and sculpture were studied alongside music, dance, poetry, film and other activities that interpret, primarily, the psychological and sensuous and spiritual understanding of man. It would then be easier to distinguish those activities which must first satisfy his physical and accessory needs under conditions of complex social constraint (as in building design), or which may have a much humbler role in serving and pleasing man. It is true that, in the last analysis, every human artefact - whether painting, poem, chair, or rubbish bin - evokes and invokes the inescapable totality of a culture, and the hidden assumptions which condition cultural priorities. (In a basic sense, and given the conditions for warmth, food and shelter, the rest is a choice and speaks to us of priorities which need constant revaluation.) For the purpose of the remarks which follow, it is certainly necessary to say that if the words 'fine-art' and 'design' simply refer to a duality as experienced in art schools, it is difficult to set up satisfactory distinctions on that basis alone.

For the discussion that follows, the situation is seen from the standpoint of a designer.

Here is a sober but accurate description of professionalism by Misha Black: '... the offering to the public of a specialized skill, depending largely upon judgement, in which both the experience and established knowledge are of equal weight, while the person

possessing the skill is bound both by an ethical code and may be accountable at law for a proper degree of skill in exercising this judgement.'

Not, obviously, a full description, and perhaps a somewhat negative one, but making the fact plain that a designer works through and for other people, and is concerned primarily with their problems rather than his own. In this respect he might be seen as a medical man, with the responsibility a doctor has for accurate diagnosis (problem analysis) and for a relevant prescription (design proposals), though the comparison should not be taken too far. It must be clearly realized that designers work and communicate indirectly, and their creative work finally takes the form of instructions to contractors, manufacturers and other executants. The exception is the designer-craftsman or artisan, whose situation is discussed in part 6. The instructions may include written specifications, reports, and other documents, detailed working drawings, presentation drawings for clients, scale models and sometimes prototypes in full size. Since this is as far as a designer goes in direct production (strictly what he makes are visual analogues), it is necessary that the instructions are very clear, complete, and in other ways acceptable to those who must work from them. Much is said about this requirement in parts 11 to 16 of this book.

The designer usually has the further responsibility of supervising the work, but there is no obvious equivalent for the feedback through eye-and-hand so familiar to the painter or sculptor, whereby the original idea is constantly developed, enriched, or diverted by the actual experience of the materials and the making-process. The artisan is an exception. For most designers the point of no return (commitment to final drawings) is indeed final, unless everything is upset by site contingencies. So-called 'feedback' does of course operate at the design stage, mainly through people, circumstance, and the continuous absorption of new information into the design brief, which will alter its definition. The outcome will still change radically from first ideas thrown up by superficial acquaintance with the design problem, but the changes will not always be of the designer's own choosing: their nature may be objectively determined by factors quite outside his control. Such factors might be something to do with costs, the availability of materials or techniques,

a change in the client's requirements, or simply the discovery of factors that were hidden from sight in the early stages of the job. Hence, in summary, the designer provides instructions (having exhaustively established and agreed the best course of action), and the work necessarily involves many different people whose interests (often in conflict) he must seek to reconcile. With some such people he may have (legally) contractual relationships.

Thus many specific responsibilities may arise - to clients, contractors, to the public who use the end-product, to numerous specialists or colleagues who may be involved if the undertaking is a large one (which implies team-work and frequently shared decisions). If it is a building, it mustn't fall down; if it is a chair, it mustn't be thirty inches high, have an innate tendency to collapse under load, it mustn't employ joints that can't be made except by special machinery (unless this can be found economical) and it mustn't cost so much as to be unmarketable. The designer cannot exercise personal insights until every apparently conflicting factor in his brief has been reconciled to best advantage: until, in short, he knows exactly what he is up against and which constraints can be made to play in his favour.

For such reasons, the designer is highly 'problem' conscious; a large part of his work may consist in problem analysis, though rarely of the complex order familiar in the sciences. To an ability for sorting, ordering, and relating information he must bring qualities of judgement and discrimination as much as a lively imagination. There is a diffuse sense in which the most seemingly 'objective' procedures in problem analysis are in practice discretionary, embedded as they are in the whole matrix of professional judgement in which relevant decisions are conceived. In some fields (such as textile design) there is far greater latitude than in others. In most design work the ultimate decisions affect, in a vital degree, appearance; but the look of the job, however lovingly considered, will emerge from, and in some sense express, the functional and circumstantial background. There are of course cases in which a communication requirement will be superimposed overridingly upon other factors, like structural logic; that would simply be a special (perhaps sophisticated) view of function.

Drawings can never be an end for a designer (excepting an

illustrator); they are a means to the end of manufacture, and their expressive content is strictly limited to the purposes of relevant communication. This obvious distinction from fine-art drawing can easily be overlooked in a design school where the design projects are theoretical, and drawings become the only outcome, acquiring the false dignity of an end-product in the process. This does not imply that drawings can be loveless, slovenly, or inadequate in any way, but that their nature is strictly purposeful. It may indeed be necessary to the designer to make loving, scrupulous and over-adequate drawings for his own self-satisfaction and to preserve his own standards. Only in this sense are design drawings 'self-expression'.

At every stage of design there will be discussion, questions and argument; the final design will have to be demonstrated and if necessary defended to the client, who will not understand what the final result will look like, but will naturally tend to assume that he knows more about his own problems than does the designer – despite having called him in to solve them. A design proposal intermingles with the world of considerations familiar to the client; communication media must be carefully chosen – verbal reports and other documents may accompany drawings and models. Designers use words constantly and in direct relation to their work; in forming and discussing ideas, assessing situations, annotating drawings, writing specifications and letters, and in report writing. This aspect of design work is frequently underestimated: an ability to use words clearly, pointedly, and persuasively is at all times relevant to design work.

It is now possible to ask, what kind of person might be happy and personally fulfilled in taking up design? It will be seen that a designer must be capable of more detachment than may be necessary to a fine-artist. He must be able to weigh up a problem, or an opportunity, in a dispassionate way, on its terms (as well as his own), and to select, arrange, and dispose his decisions accordingly. He must be able to thrive on constraint and to turn every opportunity to good account. He must like and understand people and be able to treat with them; he must be able to accept fairly complex situations in which he may well be working as a member of a team. He must be reasonably articulate. He must be practical and prepared for extensive responsibilities to other people. Finally he must be

prepared to spend at least half his time working with graphic media, since most design work appears in drawings of one sort or another when decisions have been finalized.

These remarks may suggest an uncomfortably glum idea of human perfectibility. In practice, of course a designer's life is as muddled, informal, and accident-prone, as most people's lives manage to be; not only behind the scenes, but sometimes in front of them. Every profession has roughly defined public responsibilities, which are met as closely as possible by accepted codes of practice. Again, the fact that design work is ten per cent inspiration and ninety per cent fairly hard work – not an unusual prospect – does need some well-organized procedures to keep the brief clearly in view, and the available energies best occupied.

Some of these procedures will be familiar to painters and sculptors, and certainly to film-makers; but for them the work will have a more inward character in its origins. Thus a painter's first responsibility is to the truth of his own vision, even though that vision may (or maybe always does) change as his work proceeds. He may be involved with contractual responsibilities, but not to the same extent as is a designer, whose decisions will be crucially affected by them. The designer works with and for other people: ultimately this may be true of the fine-artist, but in the actual working procedure a designer's formative decisions have a different order of freedom. The fine-artist is less dependent on discussion, agreement, letters, visits: the apparatus of communication that brings definition to a design problem, and relevance to its solution. A fine-artist usually works directly with his materials, or with a very close visual analogue to the final work. As we have seen, the designer has a long way to go before firm proposals can emerge – and even then a model may be the nearest thing to a tangible embodiment of his ideas.

In the case of film, television, and theatre, which might be described as a realm of public art, quite complex design procedures are involved. In the main, however, the real connection between fine-artists and designers springs from the benefit of a shared visual sensibility; not from a relevant or direct transference of skills, language, or formative insight, from one field to the other. Students are warned that this is an opinion: recalling the breadth of the design 'spectrum', they will see that this is a difficult matter to unravel. So

many factors impinge on the visual appearance of a design outcome that a designer's hand would seem to be guided by a wholly different 'requiredness' (a term borrowed from Gestalt psychology) from that which informs a painting or a work of sculpture. Yet there are component experiences with something in common. Equally valid transferences may occur from the 'feel' of related work in other fields (for example, philosophy, music, or mathematics) and should be encouraged to do so. Similarly, a creative sensibility may derive from unlikely sources that cannot be looked for in any one field alone.

It is only necessary to hammer home the obvious because fine-art and design (excepting architecture) are often taught as closely interrelated subjects, and students are asked to choose between them. The isolation of architecture, which has always been the home base of design theory, is hard to explain and justify. Perhaps the theory is affected by it. The term 'fine-art' is unpleasantly genteel, but will be met with in the careers prospectuses and in the art schools, normally to comprise painting, sculpture, printmaking, and photography, and to distinguish these studies from 'applied art', in the various fields of design discussed here. The view that there is a parallel situation in the sciences, as between pure science and applied technology, is a questionable one: equally untrustworthy is the supposition that painting, sculpture, industrial design, architecture, derive in some sense from the common fountain-head of 'art'. To suggest this seriously requires a view of art (and a set of definitions) quite outside the scope of the present discussion: it is partly a semantic problem, pointing to the inadequacy of ordinary descriptive language. Without distorting common usage, it might be said that designers are content to bring a certain artistry to their work, and to recognize that there is much in common between the few masters in any field – fine-art, design, science, medicine, philosophy – more, perhaps, than unites the very disparate standards that coexist in any one profession.

### 3 Design education: principles

'Well building hath three conditions: commoditiie, firmnes, and delight'

Vitruvius / Sir Henry Wotton

'Love, work and knowledge are the wellsprings of our life.  
They should also govern it'

Wilhelm Reich

A design capability proceeds from a fusion of skills, knowledge, understanding, and imagination; consolidated by experience. These are heavy words, and they refer to the foundations. We accept a certain minimal competence as the basis of professional self-respect, and as some guarantee of a designer's usefulness to other people. Within limits such a competence is definable, and will begin to form outlines within a formally structured teaching/learning situation. It is too much to say outright that design ability can be 'taught'. As with any other creative activity, it is a way of doing things that can only be grown into, perhaps – but not necessarily – in the context of a formal design education.

This view is readily conceded for something as immaterial as 'imagination', but it is commonly held that skills and knowledge must not only be taught, but rigorously examined: if only to protect an unsuspecting society against social or technical malpractice. Defensible as this may be, it is not an assumption that should go unquestioned, nor deflect attention from the weaknesses of received professional standards. The damage caused by knowledge used without understanding is merely difficult to measure: it is not less real for that. A skill may be irrelevant to the nature of a problem, or – in dealing with people – may be grossly uninstructed in a necessary tact and discernment. Knowledge may be thinly experienced as a rag-bag of conventional responses helped along by access to someone else's published working details. Plainly, skill and knowledge cannot be weighed out by the pound, and separated from qualitative

internal contradictions; yet freedom must remain the one permissible tyranny.

As for design, there are times when to say no is a constructive act; to say yes, as a designer looking to the future, is to join social commitment to a mastery of particulars. In education, all we can do is make good work possible, and be alert to its coming; never fooling ourselves that all good things come easily. To work well is to work with love. A hail of words, like rain in April, can do no more than keep the air sharp and sweet and the ground springy underfoot; and that is the best a formal design education can hope to do – relevantly.

#### 4 What is good design?

The 'goodness' or 'rightness' of a design cannot easily be estimated outside a knowledge of its purpose, and sometimes also of its circumstantial background. This is no reason for timidity of judgement; a man must reserve his right to say 'I like that; to me it is beautiful and satisfying, and more so than that one over there that works so much better' – or, 'this is a good workmanlike solution, thank God it has no pretensions to Art'. Theoretically, a well-integrated design should come so naturally to eye and hand that neither of these comments will be called upon, but human nature isn't so simply natural and nor is human society. An optimum solution is possible where the conditions for verification can refer to absolutes; a daunting and illusory requirement in most design situations. On the other hand, a design can say to us 'here is a problem that is so well understood that it can be felt to be moving toward an optimum solution; the design is inclined in that direction'. This is designers' talk; the user of a product will not be too interested in the skill with which a designer has met his constraints. If a design is so well-wrought that overtones of meaning are present, so that the work can be experienced (optionally) at many different levels simultaneously, then it is a condition of organic design that the further harmonics must not clutter or deform a simple level of acceptability.

For the designer, good design is the generous and pertinent response to the full context of a design opportunity, whether large or small, and the quality of the outcome resides in a close and truthful correspondence between form and meaning. The meaning of a good garden spade is seen in its behaviour, that it performs well; in its look and feel, its strength and required durability; in a directness of address through the simple expression of its function. More complex objects, places, equipment, situations, may well exhibit less obvious dimensions of meaning – of which one may be the property of reference discussed elsewhere in this book. A design decision may prefer some determinant principle of action to a material outcome. As a social activity, the integrity of design work pro-

ceeds from the understanding that every decision by one human being on behalf of another has an implicit cultural history. Design is a field of concern, response, and enquiry, as often as decision and consequence. In this sense (also), good design can both do its job well and speak to us.

Every design product has two missing factors which give substance to abstraction: realization and use. These are the ghostly but intractable realities never to be forgotten when sitting at a drawing board. In a similar way, any discussion of design philosophy must never stray too far from nuts and bolts and catalogues and every kind of material exigency: a designer breathes life into these things by the quality of his decision-making. Thus his concern is truly 'the place of value in a world of facts' (see the book by Köhler of that name) and the outcome can (or should) be a form of discourse; but not a verbal one. His work can be said to deploy the resources of a language and be accessible to understanding through the non-verbal equivalents of intention, tone, sense, and structure (cf. I. A. Richards), but there are other and more directly functional levels of experience which – as has been said – must come to the hand with all the attributes of immediacy. Most of the time a designer finds it hard enough to do small things well. Any number of broader considerations must not distract him from that task, but rather enliven and give sanction to its meaning.

A product must not only be capable of realization through manufacture, but in its very nature must respect all the human and economic constraints that surround production and effective distribution. This may seem obvious in the case of product and communication design. Similarly, it is difficult properly to evaluate a building without some idea of the cost factors and the client's briefing. Difficult, but not impossible, because a clear design will generally manage to state its own terms of reference, unless disaster has intervened at some stage to distort the central intention of the work. There are many cases in which a good design will be discarded for reasons which seem arbitrary, perhaps to be replaced by some meretricious product with a better sales-potential. Again, a perfectly adequate design solution, the result of much care and imagination in its development, may never reach the public at all. In this respect the artisan designer may enjoy a freedom denied to the designer for

mass production (though his economic problems will limit the scale of the work), and much experimentation in form-giving will necessarily occur in situations exempt from marketing difficulties. These will include one-off jobs, limited production runs, and public work (schools, hospitals, airports, for example). Much early discussion in the modern movement assumed – broadly for social reasons – that product design (mass production for the consumer market) was the centre of inertia that had to be revitalized: Herbert Read's book *Art and industry* reflected this assumption in the 1930s. Gropius's *New architecture and the Bauhaus* contained a classical statement which seemed to imply that product design would move inexorably toward the 'type-form' for the problem examined.

As things have turned out, the most interesting work has happened, of course, where it was economically possible. The domestic consumer market has gained an important component in DIY (do-it-yourself) which in itself demands a reappraisal of the designer's role in the areas affected. The mass production of building or service components (such as pressed-out or moulded bathroom service units) has hardly approached the potential seen for it fifty years ago. The notion of 'place' as the focus for communal achievement has scarcely fought off the demands of 'occasion' and mobility, despite moving and articulate pleas from Aldo van Eyck and others – and despite the continuing reality of place as a factor of ordinary experience, eroded as it is by communications, and the rarity of imaginative work in this field. It is a mistake to see the designer's work as conjuring up new worlds at the scratch of a drawing pen: there are many fields in which the designer could profitably work with (for instance) do-it-yourself and co-operative housing agencies; and there are fields in which a designer can and should respect the organic continuity that surrounds people's lives. Two examples: the interior designer is doubtful of his 'responsibility' because everyone knows that architects should design their buildings from the inside outwards. In fact, there are plenty of buildings that are simply weather-proofed and service-provided shells, waiting for specific uses to be provided for. However, leaving that aside, it is not a necessary argument to suppose that given adequate social resources – the whole of our physical environment should be uprooted and totally replaced at regular intervals. This is a dangerous fantasy. In fact

there is plenty of scope for the adaptation of existing buildings to new uses (a so-called slum area is as much a pattern of relationships as of decayed buildings) and this is interpretive work for which the 'interior designer' could be well-fitted. Again, there are plenty of structurally sound buildings that could be given extended life with the aid of a loan and a do-it-yourself handbook. As it is, the lunacy of high-rise development has only recently been seriously questioned; in practice, land values give rise to extraordinary palaces for paperwork springing out of areas of private squalor, and the simple things - like the provision of neighbourhood amenities - are neglected in favour of drawing-board schemes which may seriously debilitate the life that 'squalor' sometimes reflects. A run-down neighbourhood may need a lot of things but the problem must be seen in more than a tidy-minded way; every problem, however complicated by planning and growth statistics, is met with concealed assumptions (and often concealed economics). Here is ground both for humility and for diagnostic sensitivity in the way a designer approaches his work.

The difficulties for product designers are not just a matter of plain villainy on the part of manufacturers; they are, in part, a consequence of capitalism. Whilst strange things do go on in board-rooms, it must be realized that a well-designed product must be sold competitively. Experimental work may be chancy as a sales proposition. As things are, a first duty of a company director is to make his company profitable (which he may conceive as a first duty to his shareholders), and a second duty is to keep his work-people in continuous employment. Experiment becomes a closely calculated risk, very much at the mercy of the buyers in the retail trades, and subsequently dependent on a successful advertising policy, public response, and many other factors. In the furniture trade there are a few companies who have tried to maintain reasonable design standards, against the hope of improving them as the market 'softens' sufficiently to warrant further advancement. Such companies have relied on contract work furniture - for public buildings specified by architects or local authorities - to help carry them forward. It will be seen, at least, that under ordinary production conditions, product design cannot easily be evaluated against absolute standards, yet products meet constant criticism on such terms.

Unfortunately, it is also true that there are innumerable products that are just very poor realizations of a straightforward and entirely non-experimental design concept. They could have been marketed just as easily had they been designed with more distinction. The design capability simply was not there. Designers should be aware of property-relations as a conditioning factor in the way they design (and think about design), but no designer should fool himself that given 'a better society' it would then be magically easy to design well. A designer who stops designing in the hope of better things may lose his ability to design anything at all; to this extent people become what they do. Here, an idealistic student might consider the partial truth in the saying 'a few are artists, the rest earn a living' - which in caricature might be said of every profession and not less of the sciences than the arts. Those who elect to put their work before everything else, which is merely one of the conditions for complete mastery in any field, must fairly expect life to present some difficulties.

The hard facts of a market economy are easy to overlook in the relatively permissive ambience of the average art or design school. Although academic life is subject to its own peculiar stresses, economic sanctions are not pre-eminent among them. Fortunately, students need not harden themselves against a perpetual winter of creative frustrations: the situation is not as depressing as some of these remarks might suggest. It is true that a designer's freedom will reflect in large measure the values of the society in which he works. Designers are not privileged to opt out of the conditions of their culture, but are privileged to do something about it. The designer's training equips him to act for the community, as (in limited respects) the trained eyes and hands and consciousness of that community - not in some superior human capacity, but in virtue of the perceptions which he inherits from the past, embodies in the present, and carries forward into the future. He is of and for the people; and for them, and for himself, he must work at the limit of what he sees to be good. The sentimentality of talking down, or working down, is a waste of the social energies invested in his training: thus can 'social realism' enshrine the second-rate.

If society is geared to satisfactions on the cheap, the designer has a special responsibility to straighten himself out in that respect;

to decide where he stands. When real needs are neglected, and artificial ones everywhere stimulated into an avid hunger for novelty, sensation, and status-appeal, largely (but not wholly) for reasons of private or public profit; then here is his own nature, his own society. He is involved, and he must decide how best to act. It should not surprise him to find a thin and pretentious reality informing the design language of the world which he inherits. A Marxist (or anarchist) analysis may be one tool to help him sort this out, but he will hardly need to put on Marxist spectacles to see that a veneer of good taste has 'reference' to certain obvious social conditions and is not the whole of good design. The design student may sometimes find that the industrial scrap-heaps, the surplus stores, and the products of straightforward engineering, will yield images of greater vitality than will be found in more fashionable quarters (though even here, fashion spies out the land). Such a situation is a challenge, and as such must be studied and understood.

Yet it is still no answer to live in the future; every skill must be nurtured by a commitment in depth to the present. The meaning of creativity may be seen as an equation which resolves this apparent paradox. Work that lives is rooted in the conditions of its time, but such conditions include awareness, dreams, and aspirations, as much as the resources of a specific technology: such work respects the past and actually creates the future. These problems, and their wider implications for human happiness, will necessarily concern students of design, because no one can make truly creative decisions without understanding; and without a real participation in the constructive spirit of his time. *This spirit must be sought out*, not necessarily by intellectual means, to be honoured wherever it is found.

Those who are depressed by the shoddiness of our environment (except in those areas of economic privilege where it is customary to buy up the past), should study the spirit of the modern movement in its development from the turn of the century to the late 1930s. Here they will find themselves in good and most various company. As Walter Gropius often explained, the modern movement was not some matter of dogma, fashion, or taste, but a profoundly wide-ranging attempt to encompass the nature of the twentieth-century experience and to meet its physical demands with a constructive response.

What may excite us mostly about this phenomenon is its surface appeal, the tangible achievement; a whole world of very explicit imagery conjured, as it must now seem, out of nothing – an entirely fresh start. The fact of conditions historically different from our own does not diminish the marvel of this achievement and its continuing relevance. This has nothing to do with imitating the forms of the past (near or distant): anyone who sees the modern movement in stylistic terms will fail to understand its radical nature. It is also necessary to accept that most work of today (meaning 'modern' or 'contemporary') is an enfeebled and misunderstood derivation from this earlier work, almost wholly removed from its inspiration, its most deeply rooted concerns, and the force of its guiding spirit.

The effort of zero, of the 'tabula rasa', of the new beginning, is not in principle a stylistic option (though in retrospect it may be so viewed); it is an effort consequent upon certain perceptions, for which, obviously, there will be equivalents in prophetic or diagnostic acumen, across a whole civilization experiencing radical change – or perhaps it is truer to say, waking up to a foreshortened view of what such change might seem to imply. Earlier models, and the canons of idle change, the sports of fancy, become suddenly and drastically inadequate. The call is certainly to 'clear from the head the masses of impressive rubbish' and to 'make action urgent and its nature clear'; it is also to 'look shining at / New styles of architecture, a change of heart' (the quotations are from the poet Auden of the 1930s) but most of all it is an effort of address toward the irreducible; that modest yet most demanding of entitlements. Is there indeed any alternative? but silence; as George Steiner has remarked in another context. The possibly prophetic nature of such insights is often overlooked, especially when accusing the modern movement of a false and shallow optimism; as though a culture of utility could not be expected to ask 'what is it decently possible to assert, given the claustrophobic banality of a present, and the seeming threat of a future?' Less, perhaps, an insight than an indistinct awareness, and one of two negative imperatives at work, the other being *the need to stop telling lies*.

What more active principles are involved (or indeed, derived). It is usual to account for the modern-ness of modern work in terms of influences and precedents, the technological and social pressures,

new materials and techniques, the convergent history of ideas, and so forth. It is obvious that orders of form, and forms of order, are design specifics in a practical way and experienced concretely, not as a set of abstracted verbal propositions. Yet as Viktor Frankl points out, in his book written from direct experience of the concentration camps, it is curiously easy to overlook, in any analysis of human motivation, the tenacious strength of the human search for meaning. It is here that the irreducible, the without-which-not, the minimal, the verification principle, 'truth to materials', and the notion of accountability, have their roots. At a different level, it is fairly obvious that failing the imitation of natural form (the dead-end of art nouveau), a verification principle would move towards number and geometry stripped of backward reference or depleted symbolism. 'Clear expression', no unseen props, and the most for the least (the strengthening of signal and the reduction of noise) have to be seen as necessary correlates to any search from zero for significant form – given a situation of survival, as distinct from options consulted on a broad wave of optimism concerning human progress.

However, it was the second broad outreach of the modern movement, involving nine more positive principles as guides to action (in fact there are a few more), that rescued a search for meaning from being merely the celebration of a rather unattractive rectitude. These are the social principles – not unwarrantably, design being a transactional art – and they prefigure certain changes in human relations which have not occurred, but may well have to if our society is to become less death-orientated. It is in this sense that the modern movement might be said to be prefigurative, and in this sense that its effort was betrayed (forgotten) in the take-over by the complicated apparatus of commercialism. These principles may be briefly stated as follows.

The first principle is that of self-determination: the search for a subset of self-generative principles within the situation as found; as expressed by the saying 'a well stated problem is more than half solved' and, as suggested elsewhere in this book, 'a designer transforms constraint into opportunity'. As things get under way, the principle enables the job to speak up for itself with increasing confidence and fluency. Sometimes this is falsely seen, so that in fact

a designer able enough to work in this way is not actually being instructed by the job, so much as providing a good fit (i.e. just being a good designer); the imposition of arbitrary form always throws up a lot of noise and is in other ways more conspicuous. However, it is interesting that this principle, which applies very well in a straight designer-client relationship, is also flexible enough to accommodate quite different design attitudes, including those that might be thought anti-design by those who see the modern movement in formal terms (see part 7 for a discussion of this matter).

The second principle is that of reasonable assent; that what is done should be essentially coherent, intelligible, and open to discussion. (There are problems of language here which will not detain us: from the standpoint of principle, which becomes 'generative' to the way something is done, the fuel of continuing intention is more important than the ash of dead fires.)

The third is that every part in a job should work for its living ('From each according ...'). This implies distinction and emphasis not from privilege, or prior status, but from functional differentiation within the whole. This principle (aided by others) entails asymmetry, a clear structure, and certain negative imperatives mentioned earlier. (For example, in a chair, the absence of glued blocks reinforcing an unsound structural principle, or, alternatively, a structure no longer covert, but derived from glued blocks.)

The fourth principle is that objects should be designed as well as possible for use and not for profit; and that where an object cannot be designed at all unless by definition it is profitable, then the resulting compromise is against principle and not with it. The modern movement has (rightly) been accused of political naïvety by supposing that optimized design was conceivable in mass production, where marketing arrangements will ensure a good product being swept away to stimulate fresh demand. Anyone who wishes to see such matters imaginatively explored should read E. C. Large's novel *Sugar in the air*.

The fifth principle is that of anonymity; poignantly expressed in the effort to mass-produce objects of quality at low prices; more adventitiously, and sometimes trendily, in the way that designers like the idea of their Thonet chairs, jeans, clothes-pegs – not to mention the universal boot. The requirement in either case is that the particular should be seen as a special case of an available universal. The principle is also, implicitly, an attack upon the art-object so constituted by its scarcity value (for discussions of which, see John Berger's writings). An extended requirement is the suppression of unwarranted detail (which in turn entails a special case of the third principle, namely that elements are distinguished from components), such that the fuss of idiosyncrasy slips below conscious regard. The human being is thus freed to enjoy a 'true' idiosyncrasy, supposedly more authentic in being less object-fixated; so that what was once merely idiosyncratic becomes genuinely individual. Thus by discovering what is uniquely true to himself (as distinct from conferred status) the road is open to self-transcendence. (See Buber's *The way of man* for a poetic uncovering of this theme.) At a less difficult level, the principle finds expression in an allegiance to the 'set' or series (of knives, of wine glasses, or whatever) in preference to the unique and single object. The attentive reader will have noted that this principle is the most vulnerable, the most open to corruption, and the most liable to misunderstanding (old ladies deprived of their tea-cosies and sentimental possessions, reds under the bed).

The sixth principle expresses a deep desire for a new vernacular (grown out of the alienation we all feel) – seeking articulation in a popular, indigenous, locally based, and relatively unselfconscious design language; adding a sense of place to that of space, of repose and location as a counter to mobility, and so on. Less wistfully, the principle develops an interest in the simple and functionally-derived design solution, often with engineering overtones (cf. canal buildings and structures, barns, windmills, and small houses everywhere pre-1850). Local variants are usually involved – of materials and technique – and there is a predilection for small or controllable human scale. This principle has always run strongly as a current of inspiration in the modern movement, but in the early years found

expression as its apparent opposite (i.e. as a paradox), namely, as an implacable resistance to sentimental craft-revivals and every other evidence of a falsely imposed vernacular: the conviction that there are no short cuts to Elysium except through 'the assimilated lessons of the machine' (a view characteristically developed by Lewis Mumford in *Technics and civilization*). The way back is seen to be through faith and through the wilderness, and a refusal to be conned by snap answers (e.g. the candles and leathers syndrome). It is interesting, of course, that some of this antipathy can be traced to the parentage of the modern movement in the arts and crafts, and that now the movement is finding it easier to come to terms with its parents in the realm of the Alternative (see part 6), the principle is gaining confidence; it is no longer so wilfully 'protecting the lost wisdom of the tribe' behind the fortifications of an arrogant modernism. However, it should be clear how the modern movement has come to be misunderstood on this point. Who was it who said that the true romantics of this age would be its most ardent classicists? I shall not waste time on the ignorant supposition that the modern movement is about high-rise buildings (or ever was, intrinsically).

The seventh principle is possibly the most important (though this is too puffed-out a word – formative is better) and it is the most closely linked to insights available from other areas of our culture: it is, of course, the search for relationship as distinct from self-sufficiency, or self-containedness, and everything that this might be held to imply at every level of decision in design. This includes, and perhaps most prominently, the complex realm of formal relationships, and how once this principle is grasped – an entirely new way of working is disconcertingly revealed. If you had to explain to your aunt just what it is that makes 'typically modern design' different in kind to any other, this is the single principle that you would have to invoke. It is thus at once a principle of search, of reference, and of explication. Something of this is discussed in part 5 and elsewhere.

The eighth is the existential principle: that *there shall be nothing else*; and that what there is, shall be contingently respected. This most elusive of principles, is at the same time the most down-to-earth. From its employ springs the ad hoc, the improvised, the anti-

institutionalized; and on the other hand, a healthy disrespect for the tyranny of absolutes. The joker in the pack.

Finally, the ninth principle (appropriately, that of the dance) is the translation of mass into energy and relationship. It is, in a sense, the dancing out of the seventh. This principle does not go as far as Proudhon ('property is theft') though it shakes the old boy warmly by the hand somewhere along the line; nor does it foolishly believe that the silicon chip will free mankind of its material adhesions; it is, however, the energetic principle, and as such must be assumed to be always embryonic with the hope of new life. It is also, of course, if you care to follow through Illich's indications, a holy celebrant. There are three lesser, facilitating principles – including that concerned with standard and standardization – but they will not be discussed here.

Now, if 'design' is overlooked and the preceding paragraphs reconsidered as metaphor, it should be clear that the nine principles translate very potently into the prerequisites for an apolitical social revolution, and that this is no accident. It might also follow that a constructive art – design – can have, does have, an intelligibly expressive content. Of the two sets of ideas here, the first of which I described as 'negative imperatives', it could be said that the first collapse into a single pinched-face-personal-probity-principle, doomed to emaciation and 'the distortions of ingrown virginity' without the saving social outreach of the nine, which (on this analogy) are self-transcending. Returning now to the modern movement, the correspondence should be clear. The principles are, of course, interdependent (and much simplified) – as in the theory of compass adjustment, you have to put everything back together again before it makes sense. However, it would be inadmissible to have this discussion at all, were it not for the fact that for every principle mentioned here (including the first sub-set) there are precise physical correlates to be found, in the field both of object design and of design procedure generally. The notion that the modern movement prefigured certain qualitative changes in our society whereby human survival might be the better assured (under the industrial challenge) is not, on this argument, as fanciful as it might otherwise ap-

pear. It is true that this book is written from a declared standpoint, and therefore discusses design (here) in an unorthodox way. It is also true, and one function of the discussion to demonstrate, that this movement can never usefully be seen as a fashionable option that now happens to be passé. It is a serious demand upon intellectual assent and practical action.

Something of this is well expressed by Paul Schuitema, the graphic designer who worked in the Netherlands and Germany in the 1920s and 1930s.

'We didn't see our work as art; we didn't see our work as making beautiful things. We discovered that the romantic insights were lies; that the whole world was suffering from phraseology; that it was necessary to start at the beginning. Our research was directed to finding new ways, to establishing new insights – to find out the real characteristics of tools and creative media. Their strengths in communication – their real value. No pretence, no outward show. Therefore, when we had to construct a chair or a table, we wanted to start with the constructive possibilities of wood, iron, leather and so on; to deal with the real functions of a chair, a living room, a house, a city: social organization. The human functions. Therefore, we worked hand-in-hand with carpenters, architects, printers, and manufacturers.'

To reduce chaos to order, to put order into things. To make things more clear, to understand the reasons. It was the result of social movement. It was not a fashion or a special view of art. We tried to establish our connection with the social situation in our work ... The answer to our problems must be the questions: why? what for? how? and with what?'

The attractive qualities of this statement should not blind us to the fact that the modern movement has always been a minority struggle, carried on against a good deal of practical opposition, and, at best, a widely felt social indifference. At least in its early days the conflict was capable of clear definition.

It is necessary to stress some of the background considerations which prompted modern design into being, because it is too easy to study the designs that emerged as specially privileged historical

monuments, whereas the spirit that conceived them is still alive and accessible to us. In forming our own criteria for 'good' design, we cannot, of course, escape the half-conscious assumptions which make us always the children of our own time, but we do well to remember that our own concerns are in some respects closer to the years between the two world wars than to the world of the 1950s. A whole complex of emergent ideas, values, and experimental work was traumatically cut short by the experience of fascism, the horrors of Auschwitz and Hiroshima, and by the slow aftermath of cultural assimilation. Not only were energies dispersed in a practical way, but their foundations were uprooted. The implicit philosophy which underpinned modern design was never very far from what is wearily referred to as 'a rational view of man's conduct': the hope and even the confidence that if technology could only be integrated into meaningful value-structures, a new and fruitful way of life lay open to man's willing acceptance. The Second World War brutally damaged that hope.

For those who see the world as essentially an arena of conflict between good and evil, however, there can surely be no doubt that the modern movement stands for clarity, sweetness, and light; order, relation, and harmony; made accessible through the only means that are fully credible to our experience of this time. To open up a new age of revival or pastiche (the weakest form of wit) is merely to admit defeat in this sector of creative possibilities. Defeat may seem inevitable, radical change may seem a prerequisite for confidence of any kind, perhaps our civilization really cannot survive on its own terms; any of these realizations (if accepted) carries a more appropriate response than backsliding into a weakly fashionable eclecticism.

It is certainly obvious that a rational view must examine motivational forces with a more intimate sense of their origins, and the cost of their frustration. In the design field it is not just a matter of exchanging affective imagery for austerities that are deemed to have had their day. Here pop must be distinguished from vernacular; the one being a brilliantly successful commercial racket and the other being an unavailable option except at a stylistic level (see Herbert Read's poem, part 7). Our civilization has refined many hells, but in the realm of voluntary servitude it would be hard to beat the inan-

ity of pop music radio, with perhaps a few television commercials thrown in for good measure. A language of gesture and exclamation tends always toward infantilism; a measure of its warmth but also of its inadequacy. If a new synthesis of thought and feeling is to be attempted, we must think and feel our way toward the place of design in a necessary context of social renewal. Nor must we forget that a warm heart and a rather special view of history do not make a designer. Designing is very specific; a cultivated understanding is no guarantee of a specific creativity. This is the individual problem and a central concern of this book. For the social task we have fresh evidence all the time of man's fallibility, of his deepening technological commitment; of the nature of affluence divorced from social or spiritual awareness. Yet there is a pedantry of the spirit in dwelling too much on these things. The force of new life can break through where and when we least expect it; as in Paris in May 1968, when the impossible seemed suddenly within reach.

It should at least be clear that to speak of 'good' design is to speak of, and from, the conditions of our own time, and our response to these conditions. The intelligibility – and perhaps the existence – of a design 'language' is a problem of the cultural fragmentation that affects participation in every other aspect of our culture. Because the realization of a designer's work is always socially contingent, his freedoms are always a recognition of necessity in a most explicit way. An elegant design solution is one that meets all the apparent conditions with a pleasing economy of means. A fruitful solution co-opts the conditions into a new integration of meaning, whereby what was 'apparent' is seen to have been insufficient. Such answers have questions in them.