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Varieties of Design History

Having summarized the general problems of history-writing, it is now possible to look at the various ways in which design historians have approached their task. As explained earlier, histories of design vary not only because they treat different facets of the subject but also because different scholars adopt different methods and approaches. Readers will find it helpful in understanding and evaluating such texts if they can characterize and name the approach in question. Some writers give this information in the introductions to their books, others do not. Where no explicit methodological discussion occurs, it is worth scanning the index: if Marx, Engels and Gramsci are frequently cited then the chances are the book employs a Marxist approach (alternatively, it could be anti-Marxist). If the index proves unhelpful, then the text will need to be closely scrutinized and read symptomatically.

Texts can be categorized in several ways:

1. According to level and audience. Every text presumes an ideal reader or group of readers. There are specialist, academic books on design and there are also popular, journalistic ones.
2. According to the political perspective informing the text. For example, liberal, anarchist, feminist, socialist.
3. According to the underlying philosophical assumptions, for example, idealist, materialist, realist, Hegelian.
4. According to the principal academic or scientific mode of analysis employed, for example, structuralist, semiotic, functionalist, stylistic, comparative, typological, deconstructive.
5. According to the kind or school of history-writing employed, for example, humanist, social, cultural, history of ideas, Braudelian.
6. According to time or place, for example, histories of twentieth-century design, the design of particular nations or larger geographical units such as Europe.

7. According to the extrinsic discipline employed, for example, anthropology, sociology, economics, archaeology, psychology.
8. According to a materials/techniques emphasis.

Although these approaches have been listed separately, in any particular text one will generally expect to find a mix of elements. If a writer combines ideas and methods promiscuously, then one may be compelled to characterize the text as 'eclectic'.

A few approaches will now be considered in more detail to see what they involve.

The Materials/Techniques Approach

Traditionally, one of the popular ways in which museum curators and design historians arranged their objects of study was on the basis of physical materials and their associated techniques and processes. Although a wide variety of artefacts can be constructed from a natural material such as wood, scholars frequently grouped them together because of their common substance and because they were made in similar ways with the aid of particular kinds of tools and machines. Thus it was usual to collocate books and printing, silverware and silversmithing, furniture and woodwork (it should be noted that furniture can be made of fabrics and leather besides wood, and also from cane, moulded plastic and tubular steel, so the equation 'furniture equals wood' does not, in reality, always apply), and so on.

If we consider the plan initially adopted by curators at the Victoria and Albert Museum to present their collections in the new building opened in 1909, the predominantly materials/techniques basis is evident: (1) Architecture and sculpture; (2) Metalwork; (3) Woodwork, furniture and leather; (4) Textiles; (5) Ceramics, enamels and glass; (6) Paintings; (7) Engraving, illustration and design. Within these sections the aim was 'a logical scheme illustrating the technical and artistic development of the particular industry represented'.¹ (So, historical or typological arrangements could exist within main sections.) It should be remembered that the museum's collections were not primarily intended for the edification of the general public. Their presumed

constituency was narrower: craftsmen, manufacturers, designers and students. These groups were supposed to be educated and stimulated by what they saw in order to bring about an improvement in the quality and standard of British crafts, decorative arts and manufactures. This is why a materials/techniques arrangement was favoured and why the collections were limited to examples of the highest quality.

A book organized exclusively in terms of materials is *The Pattern of English Building* (1972), by Alec Clifton-Taylor. Its chapter headings include: stone, granite, slate, marble, flint, brick, tiles, wood, thatch, plaster, metals and glass. The author's aim is to demonstrate the close link between the geology of the country, the various materials this provides, and the distinctive pattern of traditional buildings that resulted from the use of them. Although the materials from which a building's shell are constructed contribute a great deal to the character of its external appearance, exactly what part they play in the structure's form and design is much more difficult to ascertain. After all, bricks can be used to make a thousand differently shaped structures. Other factors, it would appear, determine form and design. Clifton-Taylor certainly recognizes the existence of other factors but, as the following quotation makes clear, he still assigns priority to materials:

In the past the very uneven distribution of wealth between one district and another certainly had an important influence; but neither this nor other factors, such as the exigencies of climate, or changing social requirements, or the strength of tradition, or the swinging pendulum of fashion, affected the character of our local building activities nearly so radically as the nature of the materials which were available.²

Our second example of a materials-based text deals with a substance generally regarded as quintessentially modern - plastic - even though, in fact, it has existed in natural forms for centuries. Sylvia Katz's book *Plastics: Designs and Materials* (1978) systematically examines over 60 kinds of plastic, both natural and synthetic, and the extraordinary variety of products they

have made possible. It also includes a chapter on the chemistry of plastics and an appendix on moulding processes. As Katz explains, plastic has a poor public image because it was originally intended as a cheaper substitute for other materials. She sees herself as a champion of plastic and endows it with democratic potential: 'a universal material available to everyone'. Furthermore, she says 'the chemist, processor and designer can fashion an infinite combination of chemicals' and the mouldability of plastics means that it can take virtually any form. One advantage of the materials approach is that it enables the writer to transcend conventional divisions, thereby broadening the scope of the text. Katz, for instance, includes examples of medical aids, transportation, engineering, architecture (air structures) and works of art, besides furniture and consumer goods.

On the question of the design/material relationship, the book illustrates examples of plastic radio cabinets in a neo-baroque style. This suggests that the very versatility of plastic means that any style can be imprinted upon it, that there is no necessary connection between material and form. Katz argues, however, that 'streamlining in plastics is an inherent characteristic of the material. Plastic objects are curved because polymers need to flow within the moulds and corners are difficult to produce.'³ She also says that step-form objects in plastic were popular not only because the art deco style was fashionable at the time but also because the step-form facilitated the removal of the object from the mould. It seems clear from these examples that the physical properties of materials and the nature of the processes involved in manufacture favour certain forms and styles and not others, even if there is nothing absolute about the determination.

Descriptions of materials and processes can easily result in a highly technical, quasi-scientific textbook. It is difficult, therefore, to combine the materials approach with a sociohistorical study arranged chronologically. This is, however, what Katz attempts in her more recent publication, *Classic Plastics: from Bakelite to High-Tech* (1984).

The materials/techniques approach serves less well for complex artefacts assembled from parts made from many different

materials. In these cases, museum collections and texts tend to be organized according to social function and type; for example, a museum of transport vehicles; a book about bungalows.

There is little doubt that technological progress, in particular the invention of new materials such as synthetic plastics, concrete and chipboard, stimulates designers to reinterpret old products and to devise original ones. A highly standardized and uniform new material may permit the solution of long-standing mass production problems, thus enabling an ancient craft to be industrialized. Since new materials with special properties can solve design problems the search for them is, in fact, often deliberate, especially in wartime when certain familiar materials suddenly become unavailable or are in short supply. Evidently, the relation between design and materials is reciprocal. When making use of materials, however, designers always have the choice of foregrounding or denying their natural characteristics.

Histories of design emphasizing materials and techniques are closely related to histories of science, technology and invention. They will, in fact, be heavily dependent upon the latter for much of their information unless, of course, it is derived directly from the laboratory and industry.

The Comparative Method

Making comparisons between products, designers, styles and so forth is one of the routine activities of design historians and critics and yet the comparative method itself receives almost no critical attention. The aim of comparing and contrasting items is to reveal similarities and differences, so it is of little value when two items are virtually identical or utterly different. In other words, the method works best when two items have some characteristics in common but vary in other respects; for example, a telephone dated 1920 and a telephone dated 1980, or an American spacecraft and a Soviet sputnik.

The comparative method is ancient – it can be traced back to Aristotle at least. It also seems to have had a special appeal to nineteenth-century scholars and scientists. In art history the method was popularized by Heinrich Wölfflin who introduced

two projectors into his lectures in order to highlight stylistic differences and similarities between two works of art. Architectural history supplies an earlier example: Augustus Pugin used a two-image juxtaposition to great effect in his book *Contrasts* (1836; second edition 1841). Pugin wanted to celebrate the virtues of Gothic architecture and at the same time denigrate what he regarded as the barbarity of the architecture of his own day. He achieved this pictorially by juxtaposing a series of pairs of images; for example, he placed a view of a noble and harmonious Gothic townscape next to a view of the same city several centuries later ruined by industrialization. Pugin had no hesitation in embroidering and exaggerating history and reality in order to maximize the contrast between the glorious past and the odious present.

Another Victorian who favoured the comparative method was the architect and designer Owen Jones. In 1856 he published his famous book *The Grammar of Ornament*, a sumptuous volume full of colour plates featuring some 1,000 examples of pattern and decoration ancient and modern from around the world. To our eyes it might seem that Jones' purpose was to provide a sourcebook for stylistic borrowings, historicism and eclecticism. In fact, his comparisons were intended to reveal certain 'general principles in the arrangement of form and colour' which he believed were common to all good examples. The Victorian designer was supposed, therefore, to learn and apply these design principles, and not merely to copy the examples reproduced. Jones' ultimate aim was the establishment of a new style-of-the-age based upon the 'grammar' he had identified, which in turn, he believed, derived from the laws of nature. At first sight, his compendium appeared to demonstrate the bewildering variety of design throughout the world but what Jones wanted the reader to realize through the process of making comparisons was not the variety of the designs but their underlying unity: 'see how various the forms, and how unvarying the principles'.

During the mid-nineteenth century art history was influenced by the comparative method employed in other disciplines. For instance, Gottfried Semper's writings on style took their cue from the comparative philology of Franz Bopp:

Just as in the most recent researches into linguistics the aim has been to uncover the common component of different linguistic forms, to follow the transformation of words through the passage of centuries, taking them back to one or more starting points where they meet in a common *Ur-form* . . . a similar enterprise is justified in the case of the field of artistic enquiry.⁴

Making comparisons thus represented a first stage which was then followed by historical reconstruction. As Margaret Iversen explains: 'Semper believed that one could authoritatively identify motifs and understand their transformations by tracing motifs back to their original forms and by recognizing the original purposes, materials and techniques which fashioned them.'⁵

Ferdinand de Saussure, the founder of modern linguistics, has commented on the limitations of the comparative method: 'In [the comparative philologists'] investigations, they never asked themselves the meaning of their comparisons or the significance of the relations they discovered. Their method was exclusively comparative, not historical.'⁶ He adds: 'Of course, comparison is required for any historical reconstruction, but by itself it cannot be conclusive.' And later still: 'The sole means of reconstructing is by comparing, and the only aim of comparison is a reconstruction.'⁷

Perhaps the best-known instance of the comparative method within the domain of architectural history is Banister Fletcher's *A History of Architecture*, a standard reference work which first appeared in 1896; its nineteenth edition was published in 1987. The book was based upon Professor Fletcher's series of evening lectures given to trainee architects at King's College, London. His son - Banister Flight Fletcher - took on the project and edited the first 16 editions of the book. As the goal of comprehensiveness was pursued, each successive edition was expanded in size (it is now 1,621 pages long) but as late as 1959 there was nothing on the architecture of Africa. One reason for this neglect was that whereas Western styles of architecture were deemed 'historical' - that is, formed a chronological sequence - non-Western ones were regarded as 'non-historical' - that is, primitive, unchanging, not belonging to 'real' history.

The original aim of the book can be gleaned from the full title of the first edition: *A History of Architecture for the Student, Craftsman and Amateur, Being a Comparative View of the Historical Styles from the Earliest Period*. The author explains in his preface that his objective is to display 'the characteristic features of the architecture of each country by comparing buildings of each period ... thus the character of Gothic is emphasized by comparison with Classic and Renaissance architecture'. This he does by systematically comparing plans, walls, openings, roofs, columns, mouldings and ornament. Fletcher died in 1953. If he were alive today he would, no doubt, be disappointed to learn that his comparative method is no longer regarded as useful: in the eighteenth edition the comparative sections were excised on the grounds that they simply repeated information found elsewhere in the text. Another reason was the assumption – drawn from modernism – that the practice of architecture was no longer based upon historical precedents.

Whereas in Fletcher's case comparisons were a means of learning about styles and differentiating between them, in the case of the *Which* reports published by the Consumers' Association comparisons between products designed for similar purposes are an aid to purchasing. Products are compared according to their performance, convenience, appearance and price. *Which* reports are not solely the result of intelligent observation and analysis, but also the consequence of operating and testing products. To assist readers in making their choice, the findings of the *Which* researchers are generally summed up graphically in terms of a table which ensures a systematic and clear presentation. This suggests that design historians too may find it helpful in making comparisons to employ the kind of visual aids/diagrams developed by logicians.

A collection of articles about urban planning making use of the comparative approach is found in *City, Economy and Society: a Comparative Reader* (1981) edited by Allan Cochrane and others. Three relatively similar urban areas – Vancouver (Canada), Birmingham (Britain) and Cracow (Poland) – were selected in order to illustrate the interplay between market and state intervention in different social settings. The free market economy

was typified by the Canadian example, the mixed economy by the British, and the planned economy by the Polish. Once a comparison had revealed the similarities and differences between the three areas, the editors' intention was to identify 'causal relationships, or at least similar chains of historical events' underpinning any shared characteristics. Their belief was that the comparative method enabled 'limited generalizations' to be made about different times and places.

There are a number of popular illustrated books about the design of clothing, body decoration and hairstyles in different cultures which, although they may not proclaim the fact, depend upon the reader making comparisons. The value of such cross-cultural comparisons is, of course, that by contrast they make strange the customs and norms of our own society. Another, unsettling, consequence of exposure to a spectrum of different examples from many cultures is the relativization of the viewer's own culture.

When images of punks with painted faces and chains attached to their lips and ears are juxtaposed against photographs of tribal people similarly decorated, as they are in Val Hennessy's photo-book *In the Gutter* (1978), then the conclusions drawn by the viewer vary according to whether similarities or differences are attended to. If the former, the conclusion may be: 'The punk's appearance emulates the "primitive's", hence the punk wishes to be seen as a "primitive" in modern Western society'; if the latter, the conclusion may be: 'The punk's decoration is actually different from the "primitive's", which indicates that their cultural and historical situations are alien despite superficial resemblances.' In comparing, it would seem that the observer always has the option of stressing what is common or what is unique about the examples being examined.⁸

Finally, some problems associated with the comparative method ought to be mentioned. These can best be illustrated by means of an example. Suppose a scholar is confronted by two photographs of water jugs which are similar in their forms and decoration. The items are presented without any social and historical context so additional information would be needed to settle the questions: are the similarities due to the fact that both

pots are from the same culture and from the same time and place? If they come from two different cultures are the similarities due to the influence of one culture upon another (cultural diffusion) or are they due to similar physical and social conditions? In the photographs the pots may appear to be the same size whereas in reality one could be very small and the other very large. A significant difference in size could undermine the validity of the comparison: is like really being compared to like? Another fact the photographs fail to provide is any indication of quantity: if thousands of pots were produced in one culture and only a few in the other, generalizations based upon the two artefacts could be misleading. It is clear from this that the comparative method has to be employed judiciously.

Content Analysis

The technique of content analysis is wholly dependent upon comparisons. It is commonly employed in the social sciences and the humanities for analysing the manifest or latent content of messages, texts or images.⁹ Literature and the mass media have been exposed to particularly close scrutiny by content analysts. The technique is essentially quantitative in character, in that it involves counting. Every time a writer qualifies a statement with the words 'many', 'most', 'few', 'the majority', 'often', 'frequently', an estimate of quantity or frequency is taking place. Normally this estimate is intuitive or semi-conscious, but in content analysis it is explicit and systematic. To cite a simple example: one could measure with a ruler the column inches a specific story is given in a set of daily newspapers. This would supply a crude indication of the story's importance in the eyes of the different editors and in relation to other news stories if they too were measured. A second example: if an old play was discovered which scholars suspected was by Shakespeare, one way of testing the hypothesis would be to count the frequency with which certain rare words or grammatical expressions occurred in all the known plays by Shakespeare and then to compare the results with a similar count applied to the play of uncertain authorship. If the counts agreed, then this evidence would support the hypothesis that the play was indeed by Shakespeare.

As a method, content analysis claims to be objective and repeatable – in all cases several people undertaking the same procedures independently should achieve the same results.

Before content analysis can take place, a specific body of material has to be delimited. Its size and completeness is important. If the total annual output of new book titles in Britain is 30,000, then any generalization about new trends in bookjacket design based upon, say, 100 titles would be suspect because the sample is too small in relation to the total. Ideally, all 30,000 titles should be examined. Where huge quantities make an analysis of the whole corpus impracticable, random sampling procedures are employed to eliminate subjective bias in the selection of items for testing.

Once a body of material has been identified it has to be coded, that is, researchers armed with a set of categories examine the material to see if the categories apply or not. Analysis presupposes that a theoretical question has been addressed to the material. For instance, in relation to pictorial advertisements, questions such as 'How often does an image of the family appear? In these images is the man or the woman the dominant figure?' might be put. Coding in this case would involve (1) identifying and counting the images with families; and (2) identifying and counting the frequency in (1) of (a) male dominance, and (b) female dominance. Ideally, different researchers using the same criteria should code all items in an identical manner, but one can well imagine divergences of opinion arising concerning what constitutes dominance in a particular image.

When coding is complete the researchers are left with a mass of data which can be arranged and manipulated – by computer if necessary – in various ways. It is from this material that inferences, interpretations and generalizations are made. The kind of conclusions that are reached may be of the type: '75 per cent of all TV adverts using females were for products in the kitchen or bathroom'; 'Twice as many women as men in TV adverts were shown with children.' From such results it would then be possible to make certain generalizations about the status of women in society as perceived by advertisers. Although the generalizations might not represent new information, they would provide objective evidence in support of existing impressions.

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As a method, content analysis has been criticized on various grounds. For example, it has been pointed out that high frequency is not always a sign of significance: an item which occurs only once can be of more importance in certain circumstances. Also, measures of frequency give no indication of intensity or quality: the dominance of a figure in an advert could be slight or extreme. To measure such qualitative differences between items, a separate scale of values would have to be predefined for coding. Some writers are highly sceptical of the idea that culture can be measured. Theodor Adorno, for instance, once responded to such a request: 'I reflected that culture might be precisely that condition that excludes a mentality capable of measuring it.'¹⁰ Even so, Adorno was given to qualitative judgements – a measurement of sorts.

It could also be argued that the meaning of, say, a text cannot be fully comprehended without taking into account the actual context and readership. An analysis of 'content' in the abstract may, therefore, yield results which are in practice invalid.

The main value of content analysis – which as far as I am aware has not been applied to any great extent so far by design historians – is that it is a way of increasing the precision and objectivity of the historian's observations. It can also, on occasion, generate new and unexpected insights.

The Typological Approach

Earlier it was argued that when design historians focused their attention upon designed objects, it was groups and series of objects which interested them rather than single items. Works of art are generally unique artefacts, hence it is legitimate for an art historian to analyse an individual work. Designed goods, by contrast, are generally manufactured in batches, with the result that there are many sets of identical objects and series of objects with minor variations. (Modern automobile manufacture increasingly consists of a basic make which can be purchased with different colours and finishes and with various kinds of accessories.) Given this, it is more sensible and economic for design historians to base their analyses and generalizations upon groups

and series of products. One way of grouping objects is according to type.

Edward Tiryakian has defined a type as follows: 'A type as its etymology suggests (from the Greek *typos*, an impression, a cast, a model) has recurrent, general distinctive features which are not the properties of the individual as such.'¹¹ Typological classification, he adds, is a subdivision of taxonomy closely related to morphology, the study of forms. When we consider the totality of artefacts they appear to fall 'naturally' into types; they are 'inductively arrived at rather than formally deduced *a priori*'.

For example, all washing machines share a common function. Today, most of them are also similar in form and appearance. The connection between a single machine and the whole class is a token/type relationship. If all the makes of washing machine now being manufactured were to be grouped together and compared, then certain variations of form, colour, quality, mechanism and price, due to differences within product ranges and differences between manufacturing companies, would become obvious. These differences would then need explaining. This would be an exercise in *synchronic* analysis. A *diachronic* analysis of the washing machine would consider the evolution of the type from its invention and early, primitive forms to its current sophisticated state.

Sorting objects into types can be a complex operation because major types always seem to include a host of subtypes (a genus/species situation). For example, the furniture-type 'chair' encompasses thrones, Windsor chairs, armchairs, typists' chairs, dining chairs, deckchairs, stacking chairs and so forth, which vary in their materials, forms and uses. Objects such as park benches and bar stools clearly share the same overall function as chairs – seating – but somehow do not seem to belong to the type 'chair'.

As societies have developed and human culture has become more specialized and differentiated, the number and variety of types of artefact has increased exponentially. So, however onerous the task of classification, it has to be undertaken if the subject matter of design history is to remain manageable.

Some scientists would argue that, ideally, a typology ought to be exhaustive, that is, it should identify all the types within a particular field of inquiry, but identifying all the types of designed goods and buildings in modern society would be an enormous task. If it could be achieved, the result would be a complete classification of society's material culture according to type at a specific moment in time. Such a record would provide present and future scholars with a comprehensive picture of our society's technical and cultural development.

In his illuminating study of the application of the biological analogy to architecture and the applied arts, Philip Steadman discusses the type/token relation and also how types evolve.

The type is what is transmitted in copying. It is the set of 'genetic instructions' which are somehow passed from one generation of craftsmen to another . . . artefacts themselves in some sense serve to carry *information* about their own functioning and manufacture through time . . . such information passes through the heads of craftsmen . . . there exists in the mind of the craftsman in some form the type, or image, or model for a species of artefact, which guides him when he comes to make a new copy . . . it is not individual artefacts which evolve . . . It is abstract *designs*, of which particular artefacts are concrete realizations. The distinction corresponds to that made in biology . . . between the *genotype*, which is the 'description' of the species transmitted through biological heredity, and the *phenotype*, which is the physical embodiment of what is described in the individual organic body.¹²

In early twentieth-century German design theory, the concept of type-forms was extremely influential. Muthesius and Gropius, for instance, regarded types as supra-individualistic because they were the result of the work of many designers over long periods of time. It was argued that after an initial period of technological development and experiment in which various forms were tried, a standard type-form would emerge (as a result

of a process of selection akin to that taking place in natural evolution) and that once this had been perfected, no further development of the type would be necessary or desirable.

One vexed question concerning types is their relation to styles. Charlotte and Tim Benton remark about the British architecture of the 1930s: 'The sheer range of available styles ... makes it difficult to generalise except by building type, patronage group and functional programme. Many of the books about architecture during the decade resorted to a typological approach. A correlation between building type and style is usually possible. Different styles were used, more or less automatically, to express different social functions at various levels of the social hierarchy.'¹³ They claim, for instance, that 'it was fairly natural that progressive buildings expressive of new programmes (in health, welfare or education) should adopt a progressive image', that is, the modern style.

Nikolaus Pevsner's *A History of Building Types* (1976) discusses 20 different kinds of building including government offices, national monuments, theatres, libraries, museums, hospitals, hotels, railway stations, shops and factories. It is evident from this list that social function was the basis for Pevsner's classification. He arranges his types in a sequence running from the most monumental, most ideal, to the least monumental, most utilitarian. A contemporary survey of buildings according to type would produce such piquant juxtapositions as ancient cathedrals and modern airports. (A typology encompassing the whole of recorded history would include building-types which no longer exist.) Comparisons between cathedrals and airports are unlikely to be fruitful, and one can also envisage criticism on the grounds that typologies are a-historical, though of course historians can, if they wish, trace the temporal development of each type separately (in parallel as it were). Many architectural histories confine themselves to the study of a single type of structure, for example, bungalows, castles, cottages, country houses, brothels, skyscrapers, etc., and there are design histories which confine themselves to a single type of artefact, for example, the sewing machine, the Windsor chair, the stiletto heel shoe.

Pevsner's book has been criticized by Anthony D. King as follows:

While giving many interesting insights into the social function of the buildings discussed and including a wealth of valuable data, [it] relies primarily for explanation on the contribution of individual architects and prevailing styles. The selection of buildings is principally from the work of known architects, and there is no general explanation of why the form of building types changes beyond an implicit evolutionary model; there is no explanation of why buildings serving the same function have different forms in different societies. To some extent, this issue is avoided by limiting the book's compass to European and American society (i.e. parts of the world dominated by Western tradition or civilization). The questions of change and cultural variation are avoided.¹⁴

King is the editor of another text focusing upon building-types entitled *Buildings and Society* (1980). It contains essays on insane asylums, hospitals, prisons, temples, apartments, vacation houses, restaurants and offices. This somewhat curious set of examples was the consequence of the contributors' desire to explore the relation between built/spatial forms and the various social and cultural forms or institutions which gave rise to them: crime and the law gave rise to prisons, the Hindu religion gave rise to temples, the institution of the family to houses, and so forth. In order to highlight temporal and cultural similarities and differences, all the types analysed were taken from different periods and places. To preclude purely technological and stylistic accounts, an interdisciplinary approach was considered vital, so contributors were chosen who had knowledge of sociology, anthropology and urban planning as well as the history of architecture.

A valuable point King makes in his introduction concerns the first appearance of a new building-type. This is important, he maintains, because it marks a significant shift in the way a society organizes its needs. King's premiss is that the building/society relation can be read in both directions: we can learn about a

society by studying its buildings, and about buildings by studying the society in which they occur.

No account of the typological approach to the history of design would be complete without a consideration of Siegfried Giedion's famous text *Mechanization Takes Command: a Contribution to Anonymous History* (*MTC*) (1948). Giedion (1888–1968), a critic, historian, lecturer, journalist and social anthropologist, was born in Switzerland and after his education in Europe he worked in the United States. He had degrees in mechanical engineering and art history, hence his interest in machines, engineering and factory organization as well as art and design. Giedion was a friend of the architects Gropius and Le Corbusier and a secretary of the Congrès Internationaux d'Architecture Moderne (CIAM). He was an enthusiastic supporter of the modern movement and his ideas on space-time in architecture were influenced by cubism.

In the introduction to his book – *MTC* – Giedion justifies his approach and discusses the question of method. His aim, he says, is to trace 'our mode of life as affected by mechanization – its impact on our dwellings, our food, our furniture ... We shall deal with humble things, things not usually granted earnest consideration, or at least not valued for their historical import ... The slow shaping of daily life is of equal importance to the explosions of history ...' Here Giedion deliberately eschews the 'great events' type of history and the 'classic designed object' type of history. The subtitle of *MTC* also signals a rejection of the 'great designers' kind too. Significantly, Giedion was a student of Wölfflin, the advocate of 'an art history without names'. Of course, Giedion does mention names but biography is not his focus and the people he cites are as likely to be inventors, entrepreneurs, painters, scientists and philosophers as designers and architects.

MTC is a monumental text (743 pages) covering long periods of time and an array of topics. The main theme is the impact of mechanization upon factory production, agriculture and the home. Surprisingly, the mechanization of war is not addressed. Subsidiary subjects include locks, scientific management, assembly lines, tractors, slaughterhouses, meat and bread, furniture, posture, nineteenth-century taste, servants, cleaning,

refrigeration, the bath, bathing. Evidently, *MTC* is as much a history of industry, technology and social customs as it is a history of the design process.

Giedion's concept of type was much broader than certain kinds of physical artefact. For example, he traces the history of bathing from ancient times to the present in relation to two basic types of bath: 'the bath as an ablution and the bath as total regeneration'. In other words, 'the bath' refers as much to a kind of social behaviour or custom as to a material thing. Giedion's point is that the character of the artefact is linked to the character of the social behaviour of its users, and that it is the relation between the two which should concern the historian. *MTC* therefore includes a good deal of information about humanity's manners and habits - which vary from culture to culture and from age to age .. and also their changing conceptions of ideas like 'comfort'. When Giedion does discuss particular products he generally situates them within larger systems: the washbasin as one element in the layout and mechanical services of a bathroom, for instance.

Giedion's reasons for adopting the typological approach were as follows:

A treatment of problems suited to our day will constantly bear interrelations in mind. This leads to a typological approach. The history of styles follows its theme along a horizontal direction; the history of types along a vertical one. [Horizontal equals diachronic, vertical equals synchronic?] Both are necessary if things are to be seen in historical space.

We are interested in following the growth of phenomena, or if one will, in reading their line of fate, over wide spans of time. Vertical sections make it possible to trace the organic changes of a type. How far a type need be followed back into its history varies with the case ... some of the developments will call for far-reaching retrospect, others only for rapid backward glances. What is essential is the panoramic and simultaneous view. This may lead to discontinuous treatment ... Conceiving of history as *constellations* ...

His use of the word 'constellation' and elsewhere his reference to 'fragments', suggests the influence of Walter Benjamin's historiography, even though Benjamin's name does not appear in the index.

MTC has two claims to fame, first as a founding text of design history which went some way towards achieving a social history of design, and secondly as an influence upon discussions of the Independent Group at the ICA in London during the mid-1950s.¹⁵

Penny Sparke's concise text *Electrical Appliances* (1987) is a recent example of a typological history very much in the tradition of Giedion's *MTC*. Sparke's subject matter is not a single kind of product but a range of British and American products distinguished by (a) the nature of their energy source and (b) their role as domestic utensils, that is electric refrigerators, ovens, kettles, irons, fires, radiators, vacuum cleaners, washing machines, food mixers, dishwashers, frying pans, toasters and coffee/tea makers. As one would expect, Sparke devotes considerable attention to designers, their appliances and to the evolution of individual products over time, but she also broadens the context by considering technological advances in the power supply and manufacturing industries. Furthermore, since the existence and character of appliances in the home cannot be understood without reference to social issues and historical changes, she also discusses housework, the question of servants, the status of women and feminist attitudes towards labour-saving machines.

So far the examples of types cited have tended to be buildings or artefacts. It should be remembered that human beings too can be categorized according to social type. The 'yuppie' is a contemporary example. Peter York, the design and style journalist and marketing consultant, is notorious for his perceptive and witty dissections of English social types such as the Sloane Ranger and the Mayfair Mercenary.¹⁶

Various general criticisms have been levelled against this approach. For example, Tiriyakian has argued that it lacks the flexibility to deal with individual items on their own merits; he also observes: 'sophisticated users of typologies have fully

realized that quantitative differences between individuals assigned to the same category may be ... as significant as qualitative differences between the categories themselves. In other words, differences in degree are as essential to a good typology as differences in kind.' Typological classification, he continues, is rarely contextual and tends to exclude temporal and spatial factors. Furthermore, a typology may have a sterile effect by 'freezing' artefacts into a set of fixed categories, hence his conclusion: 'the upholding of typologies and a typological classification is a conservative position.'

In spite of this, it is unlikely that design historians will be able to dispense with the notion of type. Providing scholars take note of the dangers and ensure that the social context and historical development of types are explained, there seems no reason why they should not continue to find the approach fruitful.

National Histories of Design

Designed goods are often promoted by reference to their nation of origin and some histories of design are written in terms of national achievements or characteristics. The relation of design to the nation and nationalism therefore needs to be considered. To some degree this question has been addressed in the discourse of design, as in the 1985 exhibition at the Boilerhouse Project, Victoria and Albert Museum on the theme of national characteristics in design, the catalogue text for which was written by Jonathan Glancey.

National histories are, of course, commonplace in the history of art, as are discussions of the type 'the Englishness of English art'. The latter was, indeed, the title of a series of Reith Lectures which Nikolaus Pevsner gave in 1955.¹⁷ He described the lectures as a contribution to 'the geography of art', arguing that artists are determined by their country/nationality as well as by the spirit of the age in which they live and by their individual temperaments. English artists, he claimed, were notable for their empiricism (they are observant, interested in particulars), tolerance, detachment and rationality (the ability to select and use

styles according to purpose, a pragmatic political attitude ‘judging each case on its merits’), a liking for tall perpendiculars and long horizontals but also, at times, a love of flowing or flame-like lines, and a concern with nature (landscape painting and gardening) which, Pevsner says, was due to ‘a climate which favours an outdoor life’! Modern historians will find Pevsner’s mode of analysis too simplistic: a heterogeneous artistic heritage, a complex history of hundreds of years is reduced to a few stylistic and formal characteristics which are then ‘explained’ in terms of a set of presumed essential factors of the national culture and the physical environment. At the same time it is intriguing to see how in the case of tolerance Pevsner makes connections between artistic qualities and political attitudes or traditions.

For materialist historians the concept of nation is extremely problematical. Nations and countries (these two ideas are not identical in all cases) are not fixed by nature – they come into being and disappear; their boundaries and names change over time. As Raymond Williams points out in his discussion of the word ‘nationalist’, the concept of nation originated in an association of racial grouping and political formation: claims to be a nation in the racial sense usually predated the formation of a nation-state in the modern political sense.¹⁸ Most countries have a mixture of races, regions, languages and cultures, so the idea that a nation’s essence is the culture of one homogeneous race of people who occupy a specific area of land is untenable. Evidently, the concept of nation is a historical, ideological and political construct, a construct moreover which is subject to constant revision and which is the site of continual struggle between different factions within the nation-state.

Two texts are helpful in understanding nationalism: Benedict Anderson’s *Imagined Communities* (1983) and Ernest Gellner’s *Nations and Nationalism* (1983). Anderson identifies three paradoxes: the objective modernity of nations according to the historians versus the subjective antiquity according to nationalists; the formal universality of nationality as a social-cultural concept versus the particularity of its concrete manifestations; the political power of nationalisms versus their philosophical poverty and incoherence. A nation, according to Anderson, can only be

defined as an imagined community in the sense that it is what the members of a group think or believe unifies them.

Gellner argues that nationalism, although apparently based upon ethnicity, was an ideological concept which emerged at precisely the time folk, peasant and tribal cultures were being subordinated to larger political units: the age of nationalism coincided with industrialization and the destruction or incorporation of agrarian societies. Generally, the advocates of national identity were town- and city-based intellectuals who imposed their views on the population at large. In the twentieth century, many nation-states have been created as a result of political decisions taken by imperial powers shedding their empires or by the victors of major wars.

Attitudes towards nationalism vary considerably. Patriots are fervent believers in their own nations whereas internationalists despise nationalism as a primitive, reactionary form of consciousness which is the source of much human strife and war. Even some patriots are unhappy when the idea of the good of the whole nation prompts socialist governments to *nationalize* privately-owned industries.

In spite of the mythical nature of the concept of nation, it does have material consequences: people are willing to fight and die to create or preserve their nation; laws control who can and cannot belong to a nation. Furthermore, despite the inexorable growth in travel, population movement and international communication systems, there are still real, material differences between the products of different countries. How then are we to account for these differences if the concept of nation will not serve?

The land, geology, climates and material resources of countries vary. Certain features of Swedish design have been explained in terms of the country's harsh climate but, presumably, this factor also applies to Norway, Finland, Canada and the North of the Soviet Union. Also, goods designed for export need not be determined by the climate of the originating country. Where buildings are constructed from local materials which are specific to that area, then distinctive kinds of vernacular architecture can result. These real, material differences are, however, more

likely to be regional than national. Differences between regions and countries were greater in the past. The persistence today of traditions of craftsmanship, training, styles and so forth can also generate real differences between one nation and another. Yet it could be argued that in most cases these differences are likely to be minor compared to what manufactured products the world over have in common. Let us now consider the question of internationalism before returning to the issue of national identity.

Early modern architects and designers sought to transcend nationalism. Their aim was to solve design problems in a rational manner using new materials and technologies. Such solutions, they thought, would be universally valid, hence the origin of the label 'international style'. Today, few firms can exist by selling just to home markets. And since goods have to be marketed internationally, even globally, this has led to the emergence of huge multinational companies whose goods are made in several countries and whose loyalty is not to any one nation.¹⁹ Products such as cars are often designed in one country, manufactured in another and assembled in a third. It has become commonplace to refer to the national content of products in terms of percentages - '70 per cent British' - but what percentage has to be indigenous before it can be considered as belonging to that nation?

Internationalism in trade and manufacture has created an increasing homogeneity and standardization of design: the same jeans and TV programmes are to be seen virtually the world over; the consumer goods of one country look much the same as those of another. The national airline of one country may purchase its aeroplanes from another: national identity is communicated solely by the livery of the aircraft and the uniforms of the crew. In this situation minor differences of style and material can take on an increased significance and value. And, as firms become conscious of the homogenizing trend, they seek to resurrect the idea of national identity through design and advertising in order to give their products a distinctive character however spurious it is in reality. The ideological construct of nation is thus streamlined and mobilized for use as a marketing strategy. How the myth of national identity is sold in this way is most vividly seen in the tourist industry, as Donald Horne explains:

Nationality can be one of the principal colourings of the tourist vision. Turning ancient objects into 'monuments' began largely to occur while the nation-states were forming and concepts of nationality were being created. Whether recognizing it or not, as tourist-pilgrims we pay our respects to nationality; most obviously, in tourism's most stereotyped cultural forms – the souvenir, the national dish, the national drink, the picturesque quarter, the quaint folk ceremony, the phrase book, national dress.²⁰

He also points out that even relatively universal forms can seem national: 'in England, architectural styles from romanesque to regency were derived from other cultures, yet they can be presented as distinctively English.'

Another element contributing to the internationalism of design, the endless diffusion of styles and ideas, is the fact that designers travel and work in different countries. Many British-born designers, trained in Britain's art and design colleges, find employment in Italy where, presumably, they contribute to the Italianness of Italian design! Designers do not even have to travel to be aware of design trends elsewhere: the importation and exhibition of foreign goods, and the existence of heavily illustrated magazines enable them to keep abreast of whatever is happening in Milan, New York and Tokyo. A fashion designer resident in London can, therefore, easily make use of traditional Japanese dress or produce an eclectic mix based on styles 'borrowed' from several foreign nations. To re-export such clothes as 'British' would surely be a form of self-deception.

As the world increasingly becomes a global village, the prospect of a unified world culture draws nearer. Such a development would yield important advantages but there are many who would regret the loss of cultural and linguistic diversity. One factor militating against the globalization of design is the present possibility of a shift from large-scale mass production to small-scale batch production. In this way goods can be tailor-made for specific groups of consumers. Markets, it is argued, are no longer mass markets, they are plural and fragmented, hence the need

for 'niche' design and marketing to reflect and reinforce these differences. Advertising executives are also now calling for more 'character' in design, for greater variety and individualism. Diversity is thus likely to be artificially maintained by manufacturers in order to sell goods.

In the Boilerhouse exhibition, products from Britain, France, America, the Soviet Union, Italy, Sweden and Germany chosen to exemplify the various national identities were compared and contrasted. (This list reveals an exclusive concern with the advanced nations; Third World countries were not considered.) Glancey's catalogue text argued that national design differences do exist and that they are an aid to selling goods. He also acknowledged that modern products are highly standardized but noted that this was more marked in how they worked than in how they looked. Even so, he maintained: 'there are certain ways of engineering that remain peculiarly American, French or German. These reflect important cultural, economic and geographical differences.'²¹ One interesting way of explaining national identity he employed was to point to the worldview of the dominant group in a particular society. For instance, he argued that West Germany is a 'thoroughly bourgeois country with thoroughly middle-class ideals - hard work, industry, hygiene and seriousness of intent', which accounted for the extremes to which the functional aesthetic is taken there.

Another scholar with an interest in German design is John Heskett. He is the author of a book on design in Germany and was a consultant to a public relations exhibition of West German industrial design subtitled 'Images of Quality' shown at the Science Museum, London, in 1987. Heskett argues that the products of West German industry and commerce 'can be considered as an expression of contemporary German culture'.²² The show consisted of a few items by a few prestigious companies - Mercedes, Braun, Siemens, Bosch, Krups, etc. The common denominator, according to Heskett, was 'a sense of value embodied in the concept of quality'. West German design does have the image of fine quality/advanced engineering, but is this true of all its manufactured goods? A wider selection of items including tourist

kitsch might well have revealed a different story. And is quality not achieved by other countries? If so, it cannot be claimed to be exclusively West German.

What is Glancey's opinion of West German design? He too acknowledges that 'the image of efficiency is all important'. Its products have a reputation for solid engineering and reliability. He notes a preference for black and white as against colours and uses terms like 'cold', 'stern', 'clinical' and 'rational' to characterize the Germanness of West German design. However, he also points to negative aspects of its design ethos: 'heaviness', 'massive dullness', 'a lack of design flair'. Efficiency too, he says, is sometimes an illusion created by the design. A historical view of the German people suggests a different picture: their fondness for romanticism, kitsch, vulgarity and fascist ideologies. Are we to conclude that a fundamental change of character has taken place or is the present hygienic and rational image simply the sign of massive repression in their collective psyche? And to what extent can the contribution to the German economy of the Turkish 'guest' workers be considered 'expressions of German culture'? All these questions indicate the complexity of the issue of national identity in relation to design.

In her 1983 book *Consultant Design* Penny Sparke observes:

While Germany sells design in the name of science, Italy in the name of art, Scandinavia in the name of craft and the USA in the name of business, all these nations' images of design were necessary strategies in the highly competitive world market of the immediate post-war years.²³

Such shorthand accounts of national identities which reduce them to a single characteristic are surely untenable: nations are too complex and diverse to be encapsulated in this way; they possess manifold characteristics, many of which are shared by other nations. What could distinguish nations is not any one characteristic but a particular configuration of characteristics which achieves dominance at a certain time. This then becomes naturalized and stereotypes emerge - the British as a nation of

shopkeepers, for example – which can persist long after the actual composition of a nation has changed.

Anthropology and Design History

As an example of the relevance of an *extrinsic* discipline to the study of the history of design, anthropology will now be considered.

Anthropology was one of the human sciences founded by European intellectuals in the mid-nineteenth century (*anthropos* – a word element meaning ‘man’). It now has two main branches: physical and cultural (or social) anthropology; the latter is the most relevant to the design historian. Anthropologists study the origins, development and varieties of human societies and cultures. They are fond of comparing and contrasting different societies – especially tribal and modern industrial ones – in order to highlight the diversity and relativity of human experience. They are interested in all human customs, rituals, social structures and systems of interaction and exchange, myths, languages, modes of production and consumption, technologies and material artefacts. Their concept of material culture – the shelters, weapons, tools, craft objects, ornaments, body decor and so on that humans make – is of particular and obvious interest to design historians because the category includes designed goods.²⁴

A particular objective of anthropologists is to understand the rules or laws governing social life, for example the rules concerning kinship and marriage. Complex theories based upon the analysis of language have been evolved for this purpose: structuralism is one example. (For the relevance of this topic to design history see ‘Structuralist and Semiotic Approaches’.)

Anthropology originated in the context of European colonialism. Early scholars studied foreign native cultures which were markedly different from their own. These cultures tended to be perceived as primitive, backward, fossilised, inferior, abnormal and non-historical or static. Otherness also had an exotic appeal. Modern anthropologists are now aware of the dangers of paternalism and Eurocentrism and they seek to understand and

respect cultural otherness and to conduct research with their subjects in a relationship of equality not dominance. They also now realize that the presence of an outsider has an impact upon the people being studied and that this has to be taken into account when drawing conclusions about the normal functioning of the society. There are, perhaps, lessons here from which design historians could benefit. They too need to show a tolerance and respect for the design tastes of others which the historians themselves may not share. They too need to consider the impact of their presence when conducting interviews and observations.²⁵

Since design in the modern sense is a feature of advanced industrial/consumer societies, the validity of anthropological findings based upon the study of undeveloped, small-scale tribal cultures can be questioned. Nevertheless, as certain tribal practices such as tattooing, body painting and adornment also occur in advanced cultures, it is to be expected that writers on fashion like Ted Polhemus and Lynn Proctor will draw upon the work of anthropologists and juxtapose illustrations of tribal and urban subcultural examples.²⁶ However, the emphasis of some anthropologists on functionalism – whereby the elements of a system can only be explained in terms of the functions they perform in relation to the whole – implies that the roles played by, say, face painting/cosmetics are likely to be different in a tribal society than in a modern, urban one.

To qualify the above: some anthropologists have studied advanced societies. Richardson's and Kroeber's analysis of fashion changes in the dress of European women, discussed earlier, is an example. Another is Pierre Bourdieu's survey of tastes in modern France (of which more later). Bourdieu has been described as a social anthropologist and as a sociologist. This is a sign that when anthropologists look at contemporary society their discipline seems to become indistinguishable from sociology.

What should be of value to design historians are the research methods employed by anthropologists, particularly fieldwork. Where methods of observation, interviewing and photographic documentation are applied to a modern, urban situation – as in the case of Daniel Miller, an anthropologist from University College (London), who has been studying the variety of ways

London tower block residents have altered and adapted their originally identical kitchens over a number of years – anthropology and design history (and indeed sociology) appear to converge.²⁷

Although anthropology has close connections with archaeology and is concerned with the origins and development of human cultures, many of its analyses have been synchronic rather than diachronic. Since it is *history* which interests design historians most, this is a drawback as far as they are concerned. Anthropologists, it has been argued, employ a concept called the ‘ethnographic present’:

a special tense that aims to concentrate past, present, and future into a continuous present ... [it] has more merit than a reconstructed and misconstrued time dimension. It synthesizes into one temporal point the events of many periods, the value of the synthesis lying in the strength of the analysis of the perceived present. Whatever is important about the past is assumed to be making itself known and felt here and now. Current ideas about the future likewise draw present judgements down certain paths and block off others. It assumes a two-way perspective in which the individual treats his past selectively as a source of validating myths and the future as a locus of dreams ... the ethnographic present assumes an unchanging economic system.²⁸

Design historians may well feel that this conception is not appropriate for their needs.

As social beings, humans enter into relations with one another. One form this reciprocity takes is the exchange and circulation of goods. Goods can be bartered or exchanged as gifts and/or for money. Almost anything can become a gift but in contemporary society certain products are specifically designed and manufactured to serve this purpose. Any light which can be thrown upon this behaviour will be of value to design historians, hence the relevance of such works as *L'essai sur le don* (1924), a study of gift-giving in ‘primitive’ societies by the French anthropologist Marcel Mauss.

A more recent text addressing a similar theme is *The World of Goods: Towards an Anthropology of Consumption* (1979) by Mary Douglas and Baron Isherwood. This book is itself an interdisciplinary project: Douglas is an anthropologist and Isherwood an economist. They set out to answer the basic questions 'Why do people want goods?', 'Why do they acquire the goods they do?' by comparing the findings of economics and anthropology. Studies of peoples outside the industrial system, the authors contend, suggest that goods are desired and selected not merely for their particular use-values but as markers within larger communication systems and as a way of imposing identity and sense on the environment: 'Goods assembled together in ownership make physical, visible statements about the hierarchy of values to which their chooser subscribes.'²⁹ It is this which explains why certain goods are preferred to others. While this text does not deal directly with the factor of design in the selection process, any light which can be thrown on the behaviour of consumers and the question of taste is clearly of importance to design historians.

As a discipline, anthropology has existed far longer than design history. Its reflections on theory and method are thus much more extensive and sophisticated. Anthropological literature addresses such topics as evolution, diffusion, typology, functionalism, the comparative method, periodization, causality and determination, social structures and material culture. (An overview is provided by Marvin Harris's *The Rise of Anthropological Theory* (1968).) An examination of this literature could save design historians troubled by theoretical questions a great deal of time and effort.

The Social History Approach

Social history is one of the key schools of contemporary history-writing. (There is even a Social History Society and a journal with the title *Social History*.) Reflections upon its character and origins can be found in Eric Hobsbawm's article 'From social history to the history of society' (1971) and in the seven responses to the question 'What is social history?' published in *History Today* (1985).

According to Hobsbawm, the term 'social history' was in the past used in three, sometimes overlapping senses: (1) the history of the poor or lower classes (this encompasses histories of the 'people', the peasantry and the labour movement plus 'subordinate' groups like children and women); (2) the history of the manners and customs of everyday life; (3) the history of society with a strong emphasis on the economy (socioeconomic histories).

None of these versions of social history, Hobsbawm claims, produced a specialized academic field until the late 1950s. In this respect, therefore, it is a fairly recent development. Raphael Samuel ascribes the current popularity and character of the 'new' social history to the cultural revolution which took place in the 1960s.³⁰

Since the total object of study of social historians is the history of societies (societal history), their subject matter is potentially infinite – it includes everything that exists and happens within society. Nevertheless, according to Hobsbawm, scholars have tended so far to focus upon certain themes: demography and kinship; urbanism; classes and social groups; mentalities (that is, forms of collective consciousness); large-scale transformations such as modernization and industrialization; social movements and social protest.

It could be argued that the word 'social' in social history is redundant since all history-writing must inevitably address itself to human societies or aspects of them. This has prompted several historians to argue that social history is not an autonomous field of study but a methodological or interpretative approach which became necessary as a counter to other ways of writing history which used to dominate the discipline.³¹ Social histories date from the late nineteenth century: J. R. Green's *Short History of the English People* appeared in 1874. Before this time historians favoured a 'great events, great men' type of history; what have been called 'drum and trumpet' histories. Social history emerged in contrast and opposition to this prevailing mode. Instead of focusing upon the actions of governments and ruling elites, it concerned itself with the experience of the mass of ordinary people, with the mundane happenings of everyday life,

and with material and popular culture as against constitutional and administrative issues. Hence G. Trevelyan's famous definition of social history, in his 1944 text *English Social History*, as 'the history of the people with the politics left out'. (Presumably, a truly adequate social history would have to cope with both the rulers and the ruled, with both rare and expensive goods and cheap, mass produced ones, otherwise a one-sided account of the past would result.)

The presence of the word 'social' indicates a stress upon social relations and the assumption that individuals are, necessarily, social beings. Individuals tend not to be studied as such except in so far as they belong to social groups such as classes, castes, occupations, the family and so forth. Attention also shifts from the will and personalities of individual actors to impersonal forces like the economic. In recent years, social history has come to be regarded as the appropriate way of writing histories of art and design; it can no longer claim an 'alternative' status.

Politically, most social historians are on the left. This explains their interest in, and identification with, subordinate classes and groups. Edward Thompson's well-known book, *The Making of the English Working Class*, is a prime example. Nevertheless, there is nothing inexorable about the link between the left and social history. Right-wing historians can and do study the customs and habits of social groups. Nor is the subject matter of social history limited to the lower classes: there are social histories of the aristocracy and the bourgeoisie. Similarly, in architectural history examples of social histories of palaces and country houses exist alongside those dealing with cottages and working-class housing.

Given that social histories can be written from various political perspectives, it is perhaps helpful to distinguish between *social* histories, *socialist* histories and *Marxist* histories. In the latter, emphasis would be given to the struggle between the classes and the conflict between the forces and relations of production as causes of change. The historian would identify with the struggles of the exploited against their oppressors.

What a Marxist account of design might look like is indicated by Frederick Engels' chapter on 'The great towns' in his book *The Condition of the Working Class in England* (1845), especially

his analysis of the way the main streets of Manchester were organized for the benefit of the bourgeoisie in such a way as systematically to conceal from their gaze the areas of dismal working-class dwellings behind them.

Hard and fast distinctions are, however, difficult to maintain because many socialist and Marxist historians have employed the term 'social history'. In a recent attack on the post-1960 vogue for the social history of art, Nicos Hadjinicolaou has argued that this mode of history-writing is being used as an 'alibi' for a 'more principled commitment' to historical materialism.³²

The social history approach has been entrenched within the discipline of art history for a number of decades. It is associated with the work of such scholars as Arnold Hauser, Frederick Antal, Francis Klingender and T. J. Clark. Design historians have tended to take their cue from these writers rather than from other social historians.

Art and design historians are, of course, only concerned with parts of the total social process: they have to establish the relative autonomy of art and design within society as a whole. But this part/whole relationship immediately gives rise to the 'foreground/background' problem: how does 'foreground' (art, design) relate to 'background' (social context)? Clark has commented on this issue in his book about Courbet, *Image of the People* (1973):

What I want to explain are the connecting links between artistic form, the available systems of visual representation, the current theories of art, other ideologies, social classes, and more general historical structures and processes . . . If the social history of art has a specific field of study, it is . . . the processes of conversion and relation . . . I want to discover what concrete transactions are hidden behind the mechanical image of 'reflection', to know *how* 'background' becomes 'foreground'; instead of analogy between form and content, to discover the network of real, complex relations between the two. The mediations are themselves historically formed and historically altered; in the case of each artist, each work of art, they are historically specific.³³

With this programme in mind, let us consider some examples of social histories of design to see what they entail.

John Gloag is the author of several books on British design which can serve as early, somewhat crude examples of the social history approach. His 1961 book, *Victorian Comfort: A Social History of Design from 1830-1900*, for instance, is a broad account of products and services which ministered to the desire of the Victorian middle classes for comfort both physical and moral. Over-ambitiously, the text considers corsets, chairs, interior design, fireplaces, memorials and monuments, plus various forms of transport, entertainment, sports, pastimes and festivities. Habits, manners and tastes are discussed as much as design itself. There is nothing about the world of work and much of the content can be described as anecdotal. This type of social history seems to have been aimed at the general reader and, although highly factual, had no pretensions to scientific rigour.

A more recent and sophisticated attempt at a social history of design is Adrian Forty's *Objects of Desire* (1986), subtitled 'design and society'. This text concerns the period 1750 to 1980 but there is no linear, chronological account, nor is the subject matter consistent throughout. Forty limits himself to a small number of topics and themes in order to treat them in depth: for instance, design and mechanization; differentiation in design; the home; the office; electricity; and corporate identity. He pays little attention to individual designers and instead sets out 'to show the ways in which design turns ideas about the world and social relations into the form of physical objects. Only by exploring this process and by shifting our attention away from the person of the designer can we properly comprehend what design is ...'³⁴

Discussing the re-design of a Lucky Strike cigarette packet - which involved a change of colour from green to white - Forty explains its success in terms of an ideology of hygiene, purity and cleanliness so pervasive within American culture that it was seen as symbolizing Americanness by immigrant groups aspiring to a national identity. Design, in Forty's view, casts 'ideas about who we are and how we should behave into permanent and tangible form'. It is, in other words, an objective, material realization

of ideology and desire. This suggests that the analysis of designed objects can give direct access to the ideas and emotions of a social group; it perhaps overlooks the processes of mediation T. J. Clark discussed.

In addition to design historians who have adopted the social history approach, there are social historians who have tackled design-related subjects. John Burnett, for instance, is a professor of social history at Brunel University and the author of *A Social History of Housing, 1815–1985* (1986). His book is conceived as an alternative to those histories of architecture which only concern the styles of ‘important’ houses. Its aim, he declares: ‘Is to describe the types of accommodation, both existing and new, which were available to the majority of people in the period 1815 to the present day (in England), to measure and evaluate changes in housing quality over time and seek an explanation of the determinants of built form’. Among the chapters are: ‘Middle-class housing’, ‘Housing the labourer’, ‘Housing the suburbs’, ‘Council housing’ and ‘Speculative housing’. These reveal Burnett’s interest in the relation between design and class, occupation and the public and private sectors. He claims his book is not an economic history of housing nor of the social policy of housing. In the case of middle-class estates he seeks to explain their design in terms of social factors such as demographic and family structure changes, an increasing shortage of servants and so on. From the point of view of the design historian, the main danger of this approach is that the bulk of the content will concern social context and determinants, while house design itself plays a minor role.

Another text on housing is relevant here even though its author, Mark Swenarton, does not make use of the term ‘social history’. *Homes Fit for Heroes* (1981) is a detailed exploration of the relationship between politics, ideology and the design of state housing in Britain in the aftermath of the First World War. In his introduction, Swenarton claims that ‘historians and sociologists deal with politics and society but leave out design’ while ‘design historians look at design and ignore everything else – or at best relegate it to what is called “the social background” which, by its name, implies that design and society are not involved

in a single process but are separate and distinct.' He continues: 'In this book a very different view is taken. Design is treated not as a question divorced from politics and housing policy but ... as a central part of politics and policy.'³⁵

Swenarton's book was, in part, written as a corrective to certain materialist histories of urbanism which gave priority to economic factors, in particular the 'collective consumption' theory of Manuel Castells. In his conclusion he writes: 'The evidence of "homes fit for heroes" shows that the attempt to locate the determinants of housing policy solely at the material level does not work.' Later he says: 'The ideological aspects of design have been largely ignored by historians of architecture and design ... One of the reasons for this is that for designers at the drawing board, the suggestion that design is an ideological process is largely incomprehensible since it seems unconnected with their own daily experience.'³⁶

In sum, Swenarton's thesis is that the design of the houses for the returning soldiers of the British army in a period when political revolutions were taking place elsewhere 'was to prove to the people that revolution was unnecessary ... it was through the design of buildings that the state hoped to instil into the population ideas favourable to the continuing existence of the status quo.' He adds:

The conventional phrase 'the social function of design' involves a good deal more than is usually allowed. For the inference from 'homes fit for heroes' is, first, that design is not, as it is usually presented, a self-contained affair that those interested in 'society' can leave to the design specialists; and secondly, that the processes of ideology are not confined to those channels dealing explicitly with ideas (education, the press, television, etc.), which have usually been identified as the 'ideological apparatus' of society. On the contrary: it seems that design - the silent testimony of inarticulate objects - is one of the ways in which 'suitable' ideas are propagated and reinforced.³⁷

Swenarton's emphasis on the role of ideology and politics in

relation to design reflects significant developments in left-wing thinking during the 1970s, in its attempt to produce a more complex account of social processes than the vulgar materialist ones ascribing everything to economic factors.

Buildings and Society (1980), a collection of essays edited by Anthony King, a lecturer in sociology and environmental studies, has already been cited in the section on typologies. It is also relevant here because its theme is 'the social development of the built environment'. (The word 'building' in the book's title was preferred to 'architecture' because the authors did not want to confine themselves to 'high style' structures.) The editor contends that buildings cannot be regarded simply as physical entities because they, and indeed the entire built environment, 'are essentially social and cultural products. Buildings result from social needs ... Their size, appearance, location and form are governed not simply by physical factors (climate, materials or topography) but by a society's ideas, its forms of economic and social organization, its distribution of resources and authority, its activities, and the beliefs and values which prevail at any one period of time.'

He also argues that there is a reciprocal relationship between society and buildings: 'As changes in society occur, so does change in its built environment ... Society produces its buildings, and the buildings, although not producing society, help to maintain many of its social forms.'³⁸ The two-way process means that buildings can be used to study society and vice versa.

Through a series of case studies the book seeks to explore the relationship between built form and social factors. Emphasis on the actual design of buildings is what distinguishes this approach, King claims, from urban sociology, a sub-discipline concerned with the political economy of cities and regions. It is worth pointing out that although there is a close connection between social history and sociology, their aims are still different: sociologists are not normally concerned with history and what they hope to achieve above all is an understanding of the 'laws' governing social life.

To summarize just one case study from the book: King's account of the growth in popularity of the vacation house in

England from the late nineteenth century onwards. Four main factors are cited:

1. Advances in industrial capitalism produced a larger economic surplus which enabled more people to buy or rent a second house.
2. Increasing differentiation of space and building as society became more complex and specialized. A greater variety of types of buildings developed and some seaside towns became specialist holiday centres.
3. Changes in the social organization of time due to industrialization and progress in transportation. Working hours were reduced and became more standardized. Paid, longer holidays and more leisure time enabled the use of vacation houses. The 'weekend' became a social institution. Railways, bicycles and then cars meant that people could reach their second home more easily.
4. The wider diffusion of the cultural and ideological values of the elite. Aristocrats normally possessed town and country residences. This ideal spread to the middle classes and then to the working class.

King goes on to explain that bungalows fulfilled a need for solitude (an escape from urban crowds) or served as a place to renew the family. The pressures of city life generated a desire for a simpler, more rural life and this influenced the design of vacation houses. For example, picture windows and verandas brought inside and outside closer together.

The popular formulation '*design and society*' is unsatisfactory because it implies design is separate from society; diagrammatically, it produces two vertical columns with a list of design events in one and more general historical events in the other; what connects the two remains unexplained. '*Design within society*' is much better but still gives rise to a foreground/background or internal/external dialectic. (Clark's programme was intended to make the study of mediations between foreground and background more rigorous.) The challenge to design historians is to demonstrate how the design process is embedded within

particular social relations which it helps to reproduce or to alter. One theorist – Michael Thompson – has objected to the symmetry of statements like ‘society shapes design and design shapes society’ on the grounds that they assume ‘not just some recognizable persistence but eternal repetition’. He adds: ‘But our buildings were not always as they are now, nor were we always as we are now, and in using such a formula we impose a static understanding upon a changing reality.’³⁹ So whatever model is adopted it ought to be a dynamic one capable of accounting for both cyclical change and more radical, fundamental change.

As we have seen, some writers distinguish social factors from economic, political and ideological ones. Any social history of design which excludes the last three would surely be inadequate. Ideally, all relevant factors impinging upon the design process should be considered and evaluated.

Structuralist and Semiotic Approaches to Design

Structuralism and semiotics are frequently discussed together. They have much in common – linguistics, for example – without being identical. (Structuralism is concerned with structures, semiotics with signs.)

Structuralism

Modern structuralism is closely associated with the discipline of anthropology, in particular the work of Claude Lévi-Strauss, who in turn is heavily indebted to the Prague School of Structural Linguistics and the work of Saussure. Structural anthropologists demonstrate their debt to linguistics by treating human culture, myth and behaviour as if they were ‘articulated like a language’ and by employing terms derived from linguistics such as *langue* and *parole*. During the 1960s, structuralism was one of the most fashionable and influential schools of thought emanating from Paris. Its impact on British scholars was most marked, therefore, in the 1970s.

As its name indicates, structuralism is interested above all in structures, especially unconscious ones. People obey the social

rules of kinship without being taught them in any systematic way; similarly, people speak languages based on systems of grammatical rules without consciously understanding them. It is these deep, hidden structures which the analyst seeks to identify. A structure is a whole or totality consisting of various parts or elements which are systematically related to one another and to the whole. In other words, a structure is not a mere aggregate or composite. Furthermore, structures are dynamic: they are capable of change or, rather, transformation. Structures are governed by sets of intrinsic laws which enable transformations to take place, hence they are capable of *structuring*.

In linguistics it is assumed that language has a surface structure and a deep structure and that the first differs in appearance from the second. It is also assumed that what governs the translation of deep structures into surface structures are certain rules of transformation. Similar rules are considered by structuralists to govern the ability of myths to change their configurations: while the elements making up the variant forms of a myth may differ, their underlying pattern of relations remains the same; this is because they all share the same deep structure. A key aspect of structuralist thinking is that the relations between things are more important than the things in themselves.

It should be acknowledged that there are several varieties of structuralism and several definitions of 'structure'. Lévi-Strauss believes that structures are not directly observable, empirical phenomena but models devised by the analyst as a means of understanding reality. However, he maintains that the best models are 'true', hence a correspondence between model and reality is presumed. A favourite method of analysis in structuralism is the reduction of the complexity of social life to a series of binary oppositions such as nature/culture, raw/cooked. It is sometimes argued that such oppositions are the invariant universal forms of the human mind.

Apart from anthropology and philosophy, structuralism has been most influential in literary criticism. Some structural analyses, however, have also been undertaken in respect of painting, architecture and advertising. Structuralism's relevance to design can, perhaps, be glimpsed in Pierre Bourdieu's analysis of the

spatial orientation and interior layout of a Berber peasant dwelling in Algeria (first published in 1971).⁴⁰ Bourdieu begins by criticizing existing accounts on the grounds that mere descriptions and inventories of the contents of Berber houses fail to reveal their underlying meanings and significances. Only a structural analysis which considers the household in terms of the larger society with its religion, rituals, proverbs and conventions governing the respective roles of men and women, he claims, can fully explain the positioning of the house and the arrangement of its parts and contents. Bourdieu's analysis revolves around a series of binary oppositions: male/female, dry/wet, fire/water, day/night, outside/inside, etc., and he assumes that these are analogous or homologous to one another.

Although this kind of analysis is illuminating, the design historian can legitimately object that it is non-historical. Berber society is assumed to be eternal, untouched by the political, economic and social changes affecting Algeria. (The only changes which take place within it are the cyclical ones of religion and nature.) This is, in fact, the principal objection of design history to structuralism. Nevertheless, so long as the historian realizes that what a structural analysis supplies is a synchronic account, then the method can be of value in understanding patterns of human culture – such patterns can, of course, persist for very long periods of time.

In one of his essays, Lévi-Strauss discussed the problem of the relationship between structuralism and history.⁴¹ His conclusion was that they are complementary, not opposed, activities. Whereas structuralists are concerned with the ability of systems to transform themselves while still retaining the same structure, historians are concerned with how such systems originate, reproduce themselves, change and decay.

Another application of structuralism to a design topic is Varda Leymore's book about magazine and television advertising, *Hidden Myth* (1975). The book's basic methodological assumption is that the appropriate unit of study is the product field, that is all the advertisements relating to a single product or service rather than those for one brand or those created by one agency. It is argued that since the products in a product field

are in competition with one another for the same market, their associated adverts constitute a distinct system. To understand any particular advert one needs to consider how it relates to and differs from all other rival adverts trying to sell the same or similar products. It follows that butter advertising cannot be understood independently from margarine advertising. In this instance Leymore's analysis results in a series of homologies: the relationship between butter and margarine is considered equivalent to the contrasts:

dear : cheap
concord : protest
content : discontent
care : negligence
love : hate

and when these are reduced to a single contrast called 'the exhaustive common denominator' the result is

peace : war

Leymore's general conclusion is that advertising plays the same role in modern society as myth does in tribal society, that is, a conservative role. Its overall social function is to resolve, symbolically, the fundamental issues and contradictions of human existence: life and death, happiness and misery, war and peace, and so on. This process, she claims, is unconscious: neither consumers nor advertisers are aware of it.

Again the design historian can protest that while a structural analysis may reveal how advertising works as a symbolic system, it neglects the unique characteristics of individual examples, it ignores advertising's historical development and has nothing to say about the actual material conditions of its production. Another valid criticism, made by David Francis in his article 'Advertising and structuralism: the myth of formality' (1986), is that the elucidation of formal structures of meaning takes place in an empirical vacuum.⁴² Structuralists, in other words, simply assume that their analyses are the correct ones without

checking their findings via an empirical study designed to reveal exactly how people read and understand advertisements. Underlying many structuralist and semiotic studies is the rather patronizing assumption that only the theorist can penetrate the ideological smokescreen of advertising whereas 'ordinary people' are its gullible victims.

Other critics have made the points that structuralism is concerned with formal relations not content and that it is indifferent to qualitative differences between the items it analyses.

For a period, structuralism was a radical intellectual force. Its claim that human behaviour is governed by unconscious structures undermined the traditional humanist faith in the will and genius of individual subjects but it was equally disturbing for left-wing thinkers because the assumption that structures were innate dispositions of the human mind implied a fatalism which threatened their belief in the powers of human beings to transform themselves and society by means of revolution or political reforms.

Semiotics

Semiotics has been described as 'the general science of signs, the science that studies the life of signs in society'. Like structuralism, this science became extremely fashionable in France and Italy among cultural and mass communication theorists during the 1960s, though its origins can be traced back several centuries. An International Association of Semiotics was formed in 1969 and it publishes a journal entitled *Semiotica*. Various scholars are associated with the science: C. S. Peirce and F. de Saussure are regarded as its founding fathers and leading contributors include U. Eco, R. Barthes, C. W. Morris, R. Jakobson, A. J. Greimas, T. Todorov, J. Kristeva, V. Propp, T. Sebeok and L. Hjelmslev.

The word 'semiotic' derives from the Greek *semeion* meaning 'sign'. On the continent of Europe 'semiology' was preferred to 'semiotic' but international agreement has settled on the latter term. One obstacle which the novice will encounter in studying this science is the specialist vocabulary associated with it: words like 'signifier', 'signified', 'paradigmatic', 'syntagmatic', 'index',

'denotation', 'connotation' and so on. Every science generates a set of technical terms peculiar to it – they simply have to be learnt – but an added complication in the case of semiotics is that the terms/concepts devised by different theorists do not necessarily accord with one another. This problem obviously causes confusion and limits the coherence of the discipline.

A full account of semiotics will not be attempted here. There are several published texts which can serve as introductions,⁴³ but our focus is on the relevance of semiotics to design history.

Laypersons think of signs as commercial and informational displays such as road and shop signs, but the concept of sign in semiotics is much wider than this: according to Peirce, 'a sign is something which stands to somebody for something in some respect or capacity'. Signs can refer to real referents (things in material reality), or they can refer to other signs or to themselves (self-reference), and to conceptual entities, that is fictional, imaginary, possible phenomena. The latter capacity means that signs can be used to depict utopian visions but also to tell lies. (The truth or falsity of signs is a separate issue which we cannot enter into here.) Some signs resemble what they represent, others do not. Resemblance is not a requirement for signification; all that is needed is an agreement between two people that such and such a thing should stand for something else. Some signs function by means of exemplification, e.g. a sample of material sent with an order for a large quantity of that material.

Any process involving the communication or experience of meaning makes use of signs, and semiotic research therefore encompasses a vast range of topics from the circus to body language. Indeed, as the whole of human culture can be thought of as a system of signs, semiotics is a crucial science. Umberto Eco has argued that its main objective is to understand 'the logic of culture'.⁴⁴

Human language is the sign system which has been the most studied in the twentieth century. As a result linguistics – as in structuralism – has tended to function as the model for all branches of semiotics and literature has been the artform which has attracted the most sustained semiotic analysis. As a result,

visual signs tend to be discussed via concepts derived from linguistics, rhetoric and poetics. To some degree this has proved problematic because visual signs clearly differ from verbal ones in certain key respects. (It is argued that linguistic signs are arbitrary, i.e. purely conventional, while pictorial ones are motivated, i.e. determined by an external reality.)

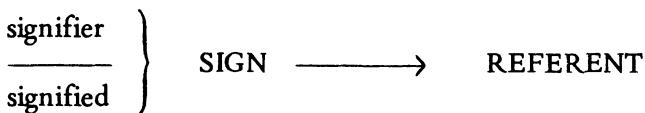
Aesthetic signs – works of art – pose special difficulties for the semiotician because it is by no means clear that they can be elucidated by a science based upon the analysis of ordinary language. The aesthetic sign, it is maintained, is language in a special condition of use. Architecture and design can also be included here because they too possess aesthetic qualities. Roman Jakobson once defined poetry as ‘organized violence against ordinary speech’, hence the understanding of the aesthetic does require knowledge of everyday codes, genres, stereotypes and so on which artists and designers reformulate, transform and transgress.

Let us now examine the inner mechanism of signs more closely. Saussure argued that a sign consists of two elements: the signifier and the signified. Like the two sides of a sheet of paper, they are different yet inseparable. A diagram commonly employed is as follows:

SIGN	
signifier	signified

The signifier is the physical means or media which enable communication to take place: ink on paper in the case of printing, pigment on canvas in the case of painting. The signified is the mental concept associated with particular signifiers; what is meant, in other words. For example, the signified of the signifier ‘dog’ in English and ‘chien’ in French is a certain type of domestic animal. (Another way of describing signifier and signified is to talk of the plane of expression and the plane of content.) In the case of ‘dog’ there is a referent – something in reality to which it refers – but, in fact, signifieds should be distinguished from referents because one can have signifieds without referents. The

signified of the word 'utopia' for example is an imaginary, ideal society, but as yet it has no real referent. Another reason why signifieds and referents are not identical is that it is the sign as a whole which has a referent not the signified detached from the sign:



More complex types of signification involve staggered systems: systems in which one sign serves as the signifier for another sign which in turn forms the signifier for a third sign and so on. Staggered systems enabled Roland Barthes to decode levels of rhetoric and myth in various kinds of communication.

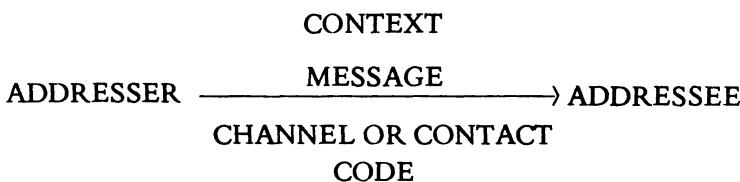
Peirce's terminology is different from Saussure's. He was much preoccupied with identifying and naming the various kinds of sign he encountered. Eventually his list numbered over 60. Most writers on Peirce confine themselves to just three key types of sign: *index*, *icon* and *symbol*. Indexical signs are those in which there is a direct physical relation between sign and meaning, e.g. a windsock gives the direction of the wind because the wind blows it in the direction it is moving; a pen line on a sheet of paper is a trace of the human act of drawing. Iconic signs involve resemblance - they look like what they represent, e.g. a passport photograph. Symbolic signs are purely conventional in character, e.g. the figure of a woman standing for the political concept of liberty; the dollar sign - \$ - representing American money.

Although these three types of sign can be discussed separately, they can also be seen as levels in a staggered system. For instance, pen lines (indexical signs) can be drawn in such a way that eventually they form the image of a house (iconic sign). And if that image resembles a particular, famous house - the White House in Washington - then the sign has a real referent and the meaning it conveys will be more than a building because the White House conventionally stands for the President of the United States (symbolic sign). Analysts of visual media have tended to favour

Peirce's three categories of sign – especially index and icon – because of their ability to cope with imagery.

Charles W. Morris, an American theorist, once proposed to divide semiotics into three branches: *syntactics* – concerned with the formal relations between signs; *semantics* – concerned with the meanings of signs, the relations between signs and referents, signs and truth; and *pragmatics* – concerned with the relations between signs and those who produce them and those who receive and understand them. Barthes' *The Fashion System* in this scheme would have encompassed the first two branches but not the third. Historians, no doubt, will feel on surer ground with pragmatics precisely because they are interested in questions like: who in the 1950s found Paris fashion meaningful? Who actually bought and wore it? What did it mean to French society as a whole and to other, foreign cultures?

Pragmatics necessitates a widening of the field of view to include not only texts and messages but addressers and addressees (or senders and receivers, or encoders and decoders) and the particular context in which communication takes place. Roman Jakobson has pointed out that such acts also require a code or language shared, at least in part, by the two participants plus a physical channel or a contact (in the sense of a psychological connection) between the two. There are, therefore, six elements in the situation:



Jakobson also argued that while all these elements may be involved in any message, in many one predominates. This led him to identify six kinds of language function, one for each element:

1. Context: the *referential* function (the message refers to context or reality).

2. **Addresser:** the *emotive* function (the message calls attention to speaker's mood or feelings).
3. **Addressee:** the *conative* or *imperative* function (the message, e.g. an order, refers mainly to the listener's response).
4. **Contact or channel:** the *phatic* function (the message, e.g. remarks about the weather, is simply a way of keeping contact).
5. **Code:** the *poetic* function (the message is self-focusing, it foregrounds the codes of language itself for aesthetic reasons).
6. **Message:** the *metalingual* function (the message is about itself or other messages).

Although designed goods, fashions and buildings are perhaps not messages in the same sense as speech acts and letters, they can and do communicate ideas. And advertisements are certainly a form of design which deliver messages. So, in so far as designed artefacts can be said to be acts of communication, then Jakobson's six functions will prove of value to design historians in understanding them more systematically.

One troublesome issue in relation to the science of semiotics is the objectivity of the analyst. Can semioticians view communications between senders and receivers from an external vantage point? In order to read signs at all, semioticians must in fact participate in the process of semiosis, and as a result absolute objectivity cannot be attained. When scholars discuss the meanings of an advertisement or a consumer durable, in most instances they are citing their own interpretations. The question arises: how many other people share their interpretations? More emphasis is needed on empirical research to discover how others – the majority of users – 'read' designed goods. Misinterpretation, whether accidental or deliberate, is also crucial because the failure rate of mass media messages and new products is known to be very high.

There are a considerable number of semiotic analyses of visual/material culture, too many to summarize in detail. They include: C. Metz and P. Wollen on cinema, C. Jencks on architecture, R. Barthes on photography, advertising and fashion, V. Burgin on advertising and photography, J. Williamson and G. Bonsiepe on

advertising, J. Bertin on diagrams, J. Baudrillard and M. Bense on design, U. Eco on comics, architecture and television, D. Preziosi on the built environment, D. Hebdige on subcultures, P. Bogatyrev on costume and folk theatre. As is evident from this list, aspects of graphic design and media have received more attention from semioticians than industrial design.

Barthes' *The Fashion System* blends structuralism and semiotics. As our previous description indicated, the historical development of clothing was deliberately excluded by Barthes, so his study was entirely synchronic. The analysis, based upon material in two French fashion magazines of the late 1950s, resulted in a highly technical account of the various codes making up the signifying system of fashion. Anyone who turns to this book expecting to find out what 1950s Parisian fashion looked like is in for a disappointment. No clearer example could be found to illustrate the difference between a history of dress and a semiotic account of it.

A writer who has subjected Barthes' book to a searching critique is Jonathan Culler.⁴⁵ He detects serious methodological problems in Barthes' work: to understand the rules governing the 'fashionability' of a garment, he argues, one needs information about unfashionable garments which Barthes fails to supply because he restricts himself to what is exclusively fashionable. Furthermore, since Barthes claims to be interested in the general mechanisms of the fashion system he ought to have considered more than just one year's examples to discover if different combinations were in operation at other times, otherwise one might confuse the particularities of a single year with the general properties of the system. Culler's conclusion is that Barthes' results are indeterminate and unverifiable.

To demonstrate very briefly how architecture can be analysed semiotically, the example of a triumphal arch will be considered. The signifier in this case is stone in the form of an arch, while the signified is the human emotion or concept of triumph; the sign is thus an arch of triumph. Evidently, the 'referent' of such an architectural sign is its function. And this sign is only fully realized when the arch is used as part of the route of a triumphal procession. The form of the arch is ancient, traditional and

specific to certain cultures. Its shape derives, one presumes, from the habit of people lining a route to acclaim victors by raising their arms or holding branches over them. It could be said, therefore, to be residually iconic or representational in its form. The permanence of its materials, the monumentality and massiveness of its structure can also be seen as signifying features: the more permanent the arch the more enduring the triumph, the larger the arch, the greater the victory.

An arch is a simple structure with a single meaning. Much more complicated buildings and assemblages of buildings exist whose 'messages' pose a greater challenge to semiotics. If a plain cotton mill can be regarded as a work of prose, then an elaborate cathedral can be thought of as a work of poetry. Hence, the analysis of the most complex types of building prompts semioticians to mobilize the vocabularies of rhetoric and poetics. In the case of a structure which makes reference to an earlier building, one can speak of 'quotation' or 'paraphrase' or 'pastiche', and one can describe the first building as 'metalinguistic' because it 'speaks' about another one. Analysts who try to apply the linguistic analogy systematically seek to establish which of the constituents of architecture – space, materials, forms, proportions – might be equivalent to those of language – phonemes, words, phrases, sentences. No two architectural semioticians seem to agree, so the discussion about these issues is long-winded and arcane. For a range of articles see *Signs, Symbols and Architecture* (1980) edited by Geoffrey Broadbent and others, which includes an ambitious article by Charles Jencks on the nature of the architectural sign.⁴⁶

To the cultural theorists of the 1960s, and certain artists and critics of the 1970s, the value of semiotics was that it provided a more sophisticated analytical methodology than had hitherto been available. Many of these individuals hold left-wing political views and semiotics initially appealed because it promised to expose the workings of dominant cultural forms such as advertising, thereby revealing their underlying ideologies. In *Mythologies* (French edn, 1957) Barthes set out to demythify. Later, he passed through a more scientific phase – *Elements of Semiology* (1964) – but he ended by calling for a 'semioclasm', that is, an

irreverent deconstruction of signs. Within a few years the radical, critical potential of semiotics had dissipated and the science had been incorporated into the academy. It is now a fairly orthodox mode of analysis used in a host of subject areas. Even that which it set out to criticize has absorbed it: advertisements in magazines like *The Face* include quotes from Barthes.

Ultimately, professional semioticians are interested in the general laws governing sign systems and codes; the study of particular examples is only a means to that end. Historians, however, are concerned with specific examples for their unique qualities. Semioticians and historians also differ in that the history of signs is normally irrelevant to the former who seek only to understand how sign systems work. Nevertheless, in spite of these different objectives, the science of semiotics can be of use to design historians as a tool for naming and analysing complex signs. At least this has been my experience in examining the various kinds of signs – pictorial and linguistic – making up H. C. Beck's famous 1930s diagram of the London Underground tube system.⁴⁷ However, to achieve a comprehensive understanding of the diagram, the semiotic analysis had to be supplemented by discussion of its origin, development through time (its various editions), function, and its relationship to the referent (the rail network and geography of London).

Semiotics is also relevant to design historians because some designers, keen to increase their mastery of communication processes, are incorporating the science into their design methods.⁴⁸ Designers, after all, rework existing signs and construct new ones. Their control or freedom in this respect is, however, a matter of debate because of the social nature of signification: without shared codes and bodies of knowledge communication between people would be impossible.

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