DESIGN VARIABLES IN A

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THE POSITIONING OF DESIGN HAS BEEN UNALTERABLY AFFECTED BY POST-INDUSTRIAL TECHNOLOGICAL DEVELOPMENTS WHICH IMPACT ON BOTH DESIGNER AND USER. THESE DEVELOPMENTS AND AN INCREASINGLY COMPLEX OPERATIONAL ARENA, HAVE LED DESIGNERS TO RE-APPRAISE THEIR ROLES AND TO ADOPT NEW PERSPECTIVES AND APPROACHES.

Design in a post-industrial era has become enveloped in the multiple specialist activities that determine the nature and rhythm of the market. This paper describes some emerging trends specific to the post-industrial design environment. It looks particularly at the designer and his relation to technology, as well as the effects information technology exerts as it erases the distinctions of place and time. It considers the development of a service economy and the use of mapping techniques which assist the designer function within complex corporate strategies and in a climate of rapid change.

DESIGN AND THE EFFECT OF ACCELERATED TECHNOLOGY

The acceleration of technology changes the role of conceptualisation in design in a profound way in that it can no longer claim an autonomous phase (Lemoine 1988). The separation of conception and execution belongs to the industrial tradition. With its hierarchical procedures and administrative implications, this tradition typifies a specific ordering and management of time and space.

In the post-industrial era, the designer works within a new time and space matrix, conscious of time as a strategic resource with a higher value than in an industrial culture (Rötzer 1991). Design now takes cognisance of information directly from the manufacturing and retail arenas, tapping into computerised networks which include cash registers and interactive point of sale terminals.

In the service industries there are increasingly frequent cases in which the consumer is directly involved in the design and conceptualisation of the service, product and retail environment, because it is assumed that the end user is an expert in determining specifications.

Such services include those with variable conditions of space and time which have to provide alternatives and options to the consumer. We think of tourism, legal, financial insurance and consumer credit services in this regard. These information based services, called telematics, are at the heart of the consumer revolution.

This condition affects the fundamental positioning of design. Design in the post-industrial era is adaptive and interactive. Once design becomes interactive, allowing consumers to specify through miniaturised information tools what they want to consume, the designer has to re-appraise his role as creator, and as a facilitator of style, taste and awareness.

The designer has to recognise that the status and nature of design have changed. Design has evolved into becoming an integral part of an accelerated information exchange network which allows for interactive conceptualisation. At the centre of this network are the tools, the hardware and software, and at the periphery, those who specify through their use.

With the advent of information based technology, the designer can no longer claim sole control over the interpretation of function and functionality. The dynamics of consumption can only be understood in terms of the designer distilling consumers' pre-figurative images into attractive and intelligible forms (Doná 1988).

In the new dispensation of design, the relationships between aesthetics, technology and industrial production - the traditional foundations of design described by the modern movement - have been irrevocably changed.

THE DESIGNER AND INFORMATION TECHNOLOGY

Design currently employs information based technologies for planning, conceptualisation, and presentation. No longer concerned with the laborious, time-consuming methods of the industrial era, computer-based design has brought immense flexibility to the operational arena.

The most significant advantages flowing from this technology, are the simulation of physical and conceptual viewpoints, and programme specifications which can be amended or changed completely in response to a command. This new mutability, this ephemeralisation of the design process affects creative form and content and enables design to be more responsive to changing markets.

When dealing with electronically generated images, the designer becomes a constructive part of the world he observes (Weibel 1991). He structures the image to be generated from an inner observation post - with a distinct aim in mind - assuming what has been referred to as an observer objective (or a subjective objective) mode of perception in relation to the design task.

POST-INDUSTRIAL ERA

Observer objectivity is dependent on non-local phenomena, on the dislocated object, on the semantics of language, on numbers and on the immaterial, distorted layers of space. Thus the observer is enveloped in a far greater uncertainty - in the so-called blind spots of perception - where the outcome of a procedure is open-ended and unpredictable, allowing randomness and chance to feature in the design equation.

This is opposed to the classical system which is based on natural space, continuity and the dimensions of the human body. This point of view excludes the observer, leading to a representation of a world that is rationalised according to expectation (Weibel 1991).

Electronic space no longer differentiates between outer and inner space, they are perforated and connected by the senses. In electronic space the model of the mind can no longer be described solely in terms of the dialectic of left and right brain attributes. A more appropriate model would be a holographic one, which combines, quantifies and animates the mental conception of static images, bringing the mind into motion.

The mediated world in its totality may be seen as a co-variant intersection, in which the interpretation of the inner observer contributes to the meaning of the message. The media are therefore not only simulations of reality, but also evocative image units, contributing to the constructing of reality.

A SERVICE ECONOMY BUILT ON SHORTER LIFE CYCLES

In sophisticated economies the threat posed by the possible saturation of consumers' physical needs is circumvented by intense innovation and renewal of products, aided by the declining durability of most goods, from household equipment to automobiles and even architecture. This planned obsolescence is presented in the proliferation of 'improved' models, when in fact the only change that occurs is in superficial styling.

The identity of the object is assessed in terms of not only its relationship with its predecessors and followers, but also as seen in relation to its type or class (Baudrillard 1988). The organisation of these signs of difference, their presentation and representation, may be defined as style. The distinction between the styles of objects allows us to describe the relationship between the model and the series to which it belongs; to use a biological term, its genetic lineage.

Society consumes mass-produced items based on the unique models or prototypes created by designers. The status or psychological value of the object is further supported and circulated through the mass communications media. Objects are not bought or sold for their intrinsic value but rather for their 'sign' value. What we find is a simulation of value, and to support it, a system that controls meaning (Baudrillard 1980).

Anyone who purchases Mies van der Rohe's Barcelona Chair, for example, shares in the harmonious world of the unique model through its connectedness to the mass produced series. In this way anyone can participate in social promotion by sharing the model within the series.

This contradiction is central to the ideology of post-industrial society. The variable - the model - is indicative of a wider determinism - the series (Baudrillard 1988).

The psychological dynamic of the series/model relationship is not dependent on the primary (use) function of the object, but rather on the secondary (symbolic) function, that of the personalised object. It is based simultaneously on individual needs and on a system of stylistic differences which constitute consumer culture.

A service economy evolves to ensure synergy between commodity and symbolic production, and in doing so creates an inverse situation in which the consumer finds himself in service of products and symbols.

Consequently, the prime characteristic of post-industrial culture is the fact that symbolic production has overtaken all other forms of commodity production (Leed 1980). Value is not determined by need satisfaction, but by the constant demand of maintaining symbolic exchange. Very much like the purchase of Levi's, Docksiders, Benneton clothing and other so-called 'labels'. In the popular idiom it translates into 'keeping up with the Joneses'.

BEING EVERYWHERE: THE STRATEGIC PALETTE

Design increasingly operates in highly competitive and complex environments. The Strategic Palette, originally developed by the Doblin Group (Keeley 1992:134-139) provides a good mind map to orientate the designer, and to clarify the relationships between all the activities that contribute to successful design, development and marketing strategies.

It has two purposes. First, it describes the interrelations between common areas of corporate activity that are subject to change owing to accelerated information. Designers will benefit from knowing these areas in order to realise the implications their own involvement has in the overall strategy.

Second, the Palette can be used to guide the definition of a strategy. It allows designers to decide which areas, and how many, need to be covered to gain an overall strategic advantage for a client.

The Palette identifies twelve stages through which strategy for any organisation may be examined.

- DEVELOPMENT
  The catch phrase in developing anything seems to be, 'Better than ever, faster than ever'. To achieve these Olympian ideals and cater to shorter product life cycles, new management systems are developed on project-team bases supported by an array of new software technologies.

- MATERIALS
  Chemical and polymer research is constantly producing lighter and more durable materials with more intrinsic uses and the ability to replace existing parts. This in turn gives rise to the development of new products with new uses. The automotive, aerospace, agricultural, software production and leisure fields are prime testing laboratories for new products.

- MANUFACTURING
  New methods, systems and materials are increasingly being aimed at developing niche markets. Customised items, short runs and modular products are becoming more feasible. Manufacturing agendas point to one thing: global products with equal service networks.

- FUNCTIONS AND FEATURES
  The range of capabilities inherent to a given product can be enhanced by simply adding a microprocessor to its mechanism. Deciding how much feature differentiation must go into a product is an important design issue.

- BRAND AND PERSONALITY
  The products most in demand today are those that lucidly describe lifestyles and attitudes. Brands have become idiomatic in their prescription of how to live. Consider a slogan like 'The Pepsi Generation'. Other products that have gained idiomatic status include Levi's, Rolex, Porsche and Coca-Cola.

  Brands have also transcended their products to such a degree that Coca-Cola has merchandising stores, and has even had its advertising jingles reworked into dance mixes. This ability of the brand to intrude into awareness areas not normally associated with it, gives it an 'unfair share of attention'.

- PHYSICAL DISTRIBUTION
  The use of bar codes, scanners and computerised cash registers in distribution networks condense the time/space relationship. Tied in with warehousing and mail-order catalogues, a product can now be ordered and delivered anywhere within 24 hours.

- CHANNELS
  Varied and multiple channelling, for example, through mail order catalogues and micro stores (those kiosk sized shops at the airport), enable companies to extend and deepen their marketing reach.

- SYSTEMS
  Systems are the most powerful and profound invention of post-industrial culture. They are invisible, yet everywhere. Network systems allow the convenience of round-the-clock, round-the-world banking and access to information banks. Scanner systems control inventories and adjust stock orders. Transportation and accommodation use forward booking systems to make global travel easier.

- SERVICE
  Customer satisfaction is what sets one company apart from another. The interface between consumer and salespeople is the most tangible and memorable phase in the value-added chain.

  Many car manufacturers now offer 24 hour roadside assistance programmes, and some retailers write personal thank you notes to patrons. The client service relationship is a valuable and jealously guarded resource.

- STRATEGIC ALLIANCES
  To serve customers and clients optimally, many companies enter into relationships with other companies, even competitors. The nineties have seen Apple in alliance with Sony, and IBM with Sharp.

- LEGAL
  It is important to protect and prevent competitors from imitating or laterally developing similar products. Research and development is often complex and costly, and the need for security is therefore imperative.

- STANDARDS
  Following or breaking an industry specification is an important decision. In developing new products like software programmes, it is important to adhere to the standard operating procedures, languages and technical requirements.

Designers are perhaps not inclined to think in strategic terms, leaving it to market planning and systems developers to work out and hand them requirements. Yet designers are crucial to strategic programmes. Four areas that are important in every strategy, serve to demonstrate the pivotal role of the designer, particularly in user-centred design.

USER NEEDS

Designers have a good understanding of user needs. The user's experience of a product or service is the point of departure in every design journey.

DIFFERENCE

The producer and consumer rely on the designer to invent features, methods and functions that set one product apart from another irrespective of user needs.

DRAMA

To stimulate awareness and influence buying decisions, some animation of the product's context is crucial. The goal is to gain the competitive edge and an 'unfair share of attention'. Advertising, display and promotion are primary here.

SURVIVAL

To ensure that the useful, unconventional and dramatic object is well-made, priced correctly, available and serviced has little to do with designers, but it is nevertheless important for the designer to be aware of other specialist roles and their implications.

Through the use of the Palette the designer is able to recognise the distinct place, duration and function of his own involvement. It serves to systemise the design task and determine the scope and depth to which design should be applied.

CONCLUSION

We find that the positioning of design has changed from an object specific discipline to a process oriented discipline, and that the designer now forms part of an accelerated information exchange cycle.

The development of computerised technology for conceptualisation, manufacture and communication leads to the adoption of an observer objective mode of perception in relation to the design task and its specific relevance to the market - a market which is global, dynamic and tending increasingly toward individualistic consumers.

The advantage of an holistic approach to design is the ability to conceive design beyond the object and its physical manifestation. The object can be seen as extending to many associated specialist fields, each of which contributes to the necessary perspective the designer needs when dealing with design from day-to-day.

As an explorer of signs and systems the designer uses mapping techniques to chart and order the imagination. The significance of research in this area is clear. Designers need to take cognisance of current themes in design theory that point to new directions for design and which redefine their own positions within practice.

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