THE NATIONAL COLLEGE OF ART AND DESIGN

" PLANNED OBSOLESCENCE : Its effect on Quality"

A Thesis submitted to :

THE FACULTY OF HISTORY OF ART AND DESIGN AND COMPLEMENTARY STUDIES

and

IN CANDIDACY FOR THE DEGREE

by

DAVID MORAN

DEPARTMENT OF INDUSTRIAL DESIGN

FACULTY OF DESIGN

APRIL 1988

CONTENTS

List of Illustrations

I. INTRODUCTION

Planned obsolescence, so inherent in our modern social structure at every level, is eroding the present 'quality' of design.

> " We live in a throwaway economy, a culture in which the most fundamental classification of our ideas and worldly possessions is in terms of their relative expendability."

The subject itself covers a varied and diverse spectrum of areas and therefore demands a considerable amount of generalisation if it is to be kept within the scope of this thesis.

The chosen parameters are seen as design, economics, and society. The problem is first introduced from each of these viewpoints, placing the subject within a general framework and context for further discussion.

One should note that these areas overlap considerably and are analysed from the viewpoint of their most dominant forces and their contribution to obsolescence. They have therefore been somewhat simplified to a 'cause and effect' in the following chapters.

The leading causes of obsolescence in this context are regarded as the consumer, designer and manufacturer. Their unique effects are seen as status, technological and artificial obsolescence respectively. These areas are considerably broadened throughout the thesis with a constant emphasis on design and quality.

Finally in drawing the subject to a close its effect on quality and conversely the emerging effect of quality on obsolescence is discussed.

In conclusion this thesis has woven a loose path through the intertwined areas of design, economics and society and questioned the significant impact planned obsolescence has on the quality of design.

1. DESIGN

> " The iridescent glisten of an automobile under a street light,the texture of plastic or concrete, the staggering vision of cityscape as seen from the window of a jet ...."

These are the realities of modern existence. The ocean of man-made physical objects that surround us is expanding with explosive force, shaping our environment and ultimately dictating social and even cultural trends.

Yet to judge by so many of our products and environments most of us care little about design. We are surrounded by a multitude of 'designed' products where excessive energy, irreplacable resources and too much creative talent is used in making them. Enormous pollution results during the production cycle not to mention when we throw away the products after their 'useful' life has ended.

But 'useful' in what sense ? Designers may be asked to change a product for no other reason than to create an image of newness, for example with 'this years' car. This is but one example where 'fashion' trends dictate the life span of a product. Then of course we have products like 'throw-away' ball point pens and cigarette lighters which are designed to be discarded after a limited functional period. The list is endless, yet how often do we take this principle of life expectancy into account when we buy products and how well do the designers of these products deal with it ?

Is there any 'logic' behind limited lifespans or 'built in' obsolescence in products ? The facts seem to suggest that it is more 'economical' than 'useful' design. Consider the following...

2. ECONOMICS

" In medieval times fine clothing was so expensive that it was passed on from one generation to another. "

Today however we hardly think about the revolution in mass marketing and mass production techniques that can produce changes in style and colour annually, not just for a few thousand wealthy patrons of fashion but for tens of millions of people.

The increasingly high investment that is needed if a new design is to achieve the economies of scale, for example, the growing cost of planning and tooling up for a new automobile, heightens the risks taken by investors who must take into account the generally low unit cost and short life span of the product. The faster these risks are recouped the better for investors who speaking metaphorically use todays 'throw-away' culture as 'security' for their investments.

Broadly speaking earnings must be sufficient to cover production and distribution costs, provide profit and recover all design development and launching costs. Achieving these ends with the 'economies of scale' results in it being almost cheaper for the consumer to buy and discard a new product than to have the 'old' one repaired. But more than economics is involved for the extension of the throwaway culture has important consequences.

3. SOCIETY

> " Society continues to raid natural resources, ravage the ecology, and degrade peoples living and working environments at an accelerating pace. "

From cardboard milk containers to the rockets that power space vehicles products created for short term or one time use are becoming more numerous and crucial to our way of life. Homes are becoming large processing machines through which objects flow, entering and leaving at a faster and faster rate.

What are the criteria for the design of these products ? - is it the needs of people and society or is it another 'cog' in the wheel of economic success.? How significant is design in these instances. Consider technology and disabled people.

The lack of readily available well designed aids for the disabled is an example that supports David Dicksons claim that technology embodies and reflects the structure of society in its design. If disabled people held more power in society, even if it were only through more purchasing power, then there might be a technology to cater adequately for them. Thus this problem area exposes the limitations of design, on its own, as a force for social change.

It does indeed seem surprising that modern technology should have come to the aid of disabled people much more than it has, yet this is a reflection of the social priorities and controls which direct technology.

The same applies to all of the social questions which surround the social

value of design; they have been debated ever since Victor Papaneks critical attack in 1971 on american industrial designers for having elected to serve as 'pimp' for big business interests.

> " The opportunities for intelligent design today and tomorrow are greater than ever for the world stands in need of wise reappraisal of its systems. "

4. CONCLUSIONS

We are surrounded by an ever multiplying variety of 'disposable' man-made products. Without further thought they are an accepted part of modern everyday life ;

" What would we do without them..... ? "

Yet would we, could we, or can we do without them ? Having being formed and accentuated by a strange combination of design, society and economics, it is hard to imagine a future without an annual supply of throw-away objects.

Closer scrutiny reveals finely balanced underlying structures between the general areas of design, society and economics. The previous chapters are an initial probing or questioning of these areas as seen from the viewpoint of product design and serve to place 'planned obsolescence' within a context and framework for further discussion.

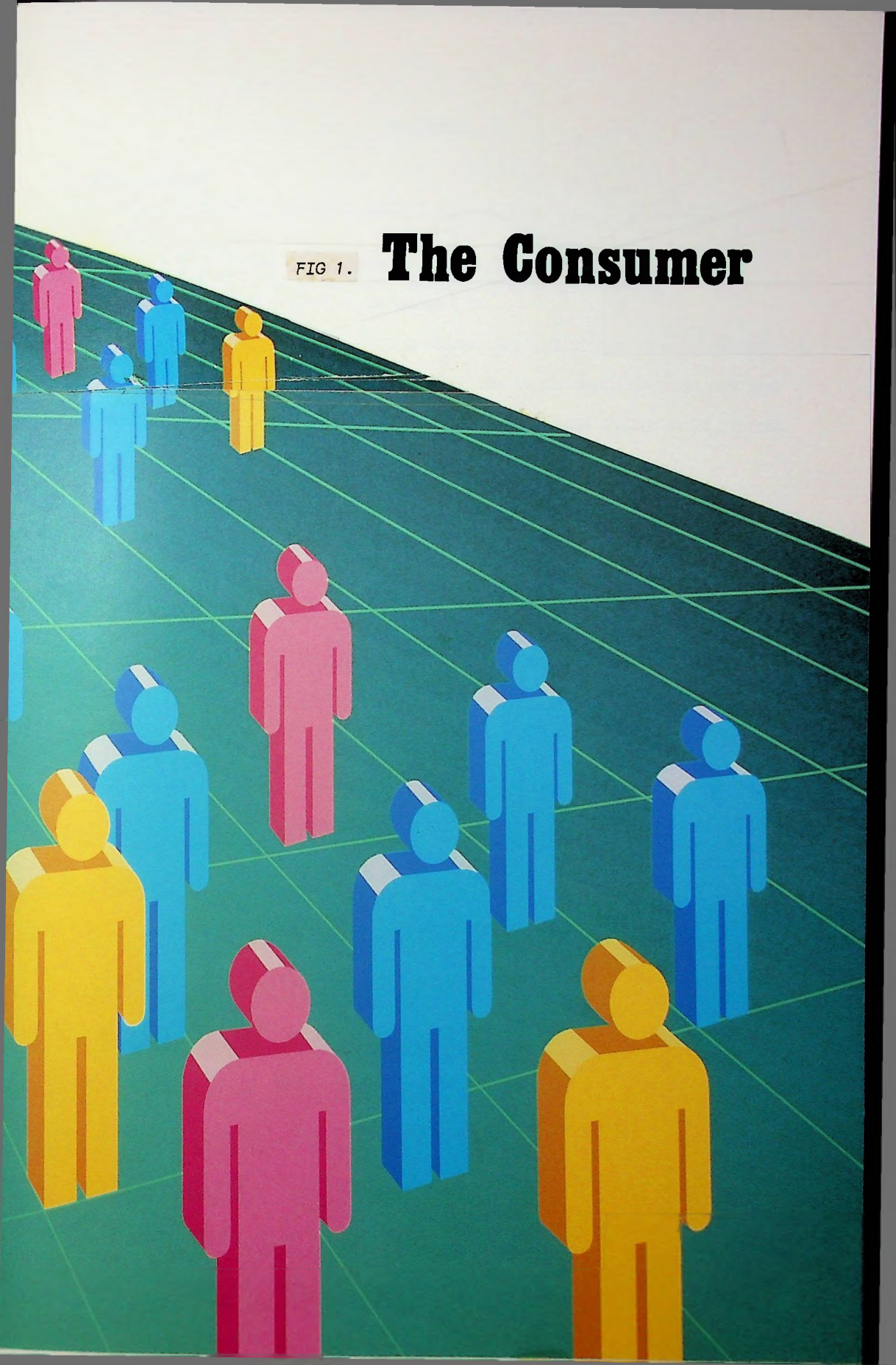


FIG 1.
The Consumer

5. THE CONSUMER

> " The US was the first nation to mass produce and consume, new appliances such as vacuum cleaners, sewing machines, typewriters and washing machines. "

In 1950's America, production was no problem, the difficulty was to consume at a rate which would keep up with production. 'Built in obsolescence' was the awnser with cardboard furniture, throw-away plates, soft drinks sold in one-trip glass bottles, and long life beer in short life cans.

The technique of designing the consumer to the product had been perfected, giving people a 'desire' for possession and creating an 'image' into which people wanted to fit.

The reasons for the growth in consumerism were multiple. They included huge increases in the production of mass produced goods because of technological improvements in manufacturing, a rapid rate of increase in population during the second half of the century, a generally improving standard of living and the growth of urbanization which brought with it the implications of increased consumption of material goods especially as status objects. By roughly 1960 more people from more social classes were regularly buying more products than ever before.

Consumers developed a 'culture' of these products for the home and office. The emancipation of women and the smaller number of servants after the war encouraged the growth of the manufacturing industries and meant that new merchandise was to acquire a role in everyday life.

The aspects of mass production and mass consumption soon spread and became embedded within different societies. For example in Britain they became mixed with the rising 'pop culture' of that time. In the early 60's artists such as David Hockney and Allen Jones were important as a catalyst in both isolating and making intellectually respectable such notions as bright colours and 'pop' imagery and mixing them with abstract concepts like 'object symbolism' and 'expendability' which were to become such central features of the pop design movement a decade later.

The decorative styles that they developed soon covered the surfaces of countless fashion items, furniture, graphics and a whole range of small products from clocks and trays to mugs. They were all short lived and conformed to the formula that critic and historian Reynar Banham described as

"massive initial impact and small sustaining power"

These and many other influences both past and present have the effect of producing in wave after wave an ever changing social context with direct consequences on the consumer and their 'groupings'or market segmentation.

This has had such an impact that no longer can comparative advantage of sales be sustained for long just through lower costs or higher technologies. Instead companies are having to emulate the Japanese in adopting sophisticated marketing strategies, in which extremely fine tuned market segmentation plays a central role in selling products.

This all results in a more thorough bombardment of consumers by way of increased market segmentation which in turn leads to increased consumption. The 'stepped up' turnover of things, however, is only a small part of a larger context. The foreshortening of our ties with the physical environment, and life in high transience society.

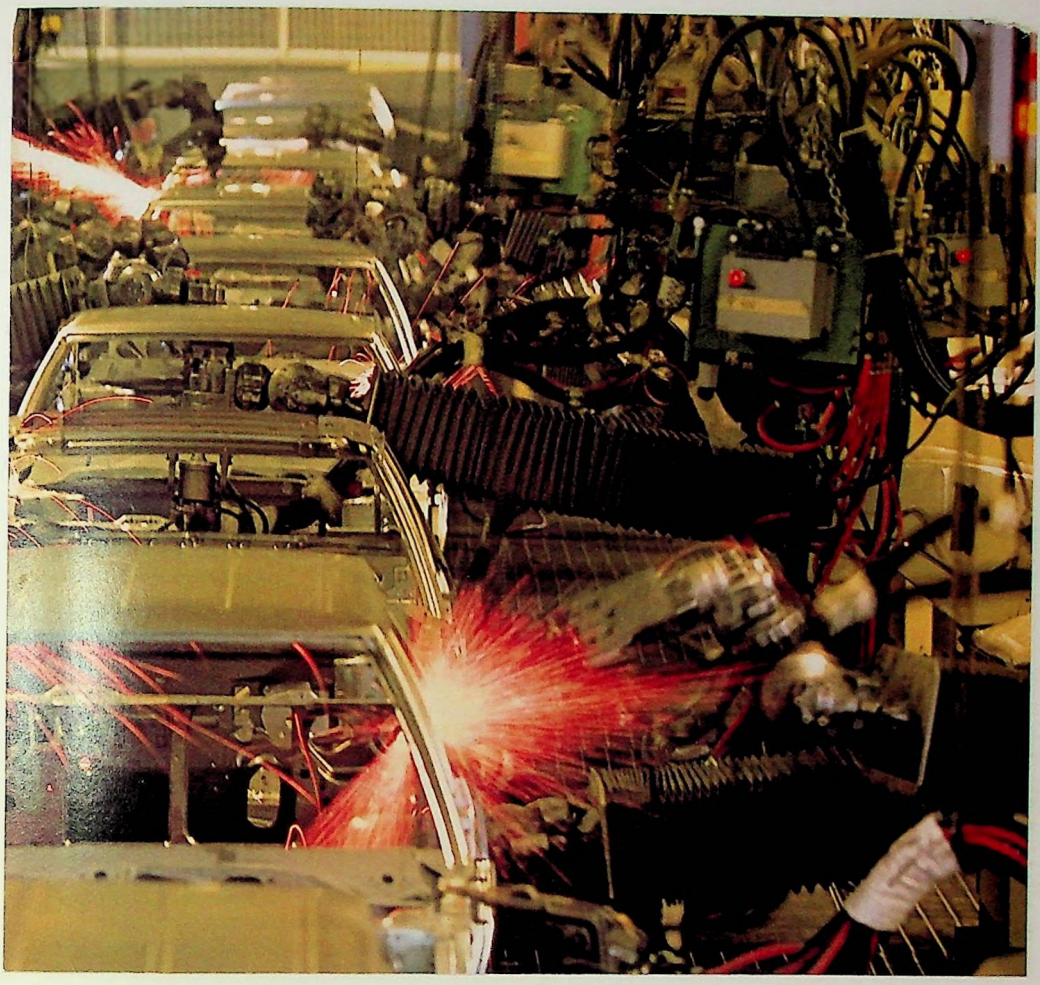


FIG 2. Mass Production

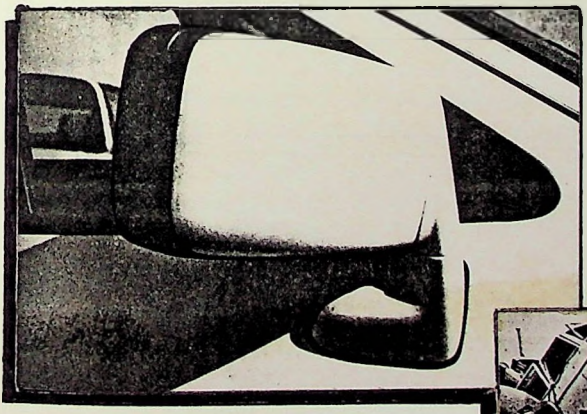
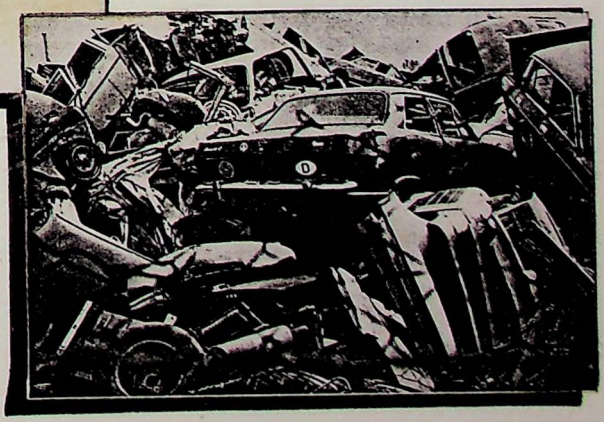


FIG 3. Styling Detail

FIG 4. Mass Obsolescence



Dissatisfaction with both consumerism for consumerisms sake and the aesthetic of modernism has led to an international crisis of design values from which we are only just now tentatively emerging. While a few 'experiments' to start afresh such as 'Memphis' in Italy have been attempted in recent years, design is on the whole still reeling from the shock of its accelerated evolution and its affiliations with mass culture.

At the risk of gross simplification the situation is reduced to 'supply and demand'. The demand in the short term coming from the consumer, as with the previous example of 'pop culture' and the supply coming from those who realise they can just as easily 'create' demand as supply it, as with the example of American mass-production. To avoid a saturated consumer market one uses design while still in a crisis of 'design values' to use 'built in' or 'planned' obsolescence in the products being sold - simple ?! - but what are some of the effects on society ?

FIG 5. Stylish Car

STATUS

FIG 6. Status

6. STATUS OBSOLESCENCE

The effects of consumer induced obsolescence is highlighted by ' Status obsolence ' where fashions are created in such a way that consumption brings disgrace or prestige in accordance with last years or this years model.

The classic example of status obsolence has to be in American automobile styling of the 50's and 60's, where the addition of a single airvent which did not fulfil any purely functional purpose, indicated to the watching world that it was or was not the newest model available.

We have the same practice continuing today with for example 'speed' stripes on the sides of 'this years' car, where last years had none, even though mechanically they are identical. More often than not the price of this model is increased by the addition of a piece of tape.

The car may also be seen as more than a stylish means of transport. It can among others become an expression of the personality of the user, a source of that pleasure associated with speed or be made to symbolise youth, virility, power, wealth or status. For example in the Netherlands , the Volkswagon beetle has been associated with the travelling salesman while the Citroen 2CV has been associated with young intellectuals and professionals. Similarly in North America, the limousine has become the symbol of high office.

The lavish spending on 'status' contrasts with the estimation that automatic seat-belts and self-inflating air bags could save 12,000 lives annually, in the US. alone. A curious imbalance.

The title status obsolence could also include the current phase of 'gimmick' design, where designers 'consort' with salesmen to produce totally useless

products which once their novelty value has worn off, are disregarded or forgotten about. Leaving aside the waste of energy and resources by people involved in the design and manufacture of such products, not mentioning the ecological and social problems created by their discarding, it is a sad reflection on the profession of industrial design that society feels the needs for gadgets to enhance an otherwise dull life.

" Too many 'useful' things, result in too many useless people"

as Karl Marx commented. Indeed the fact that many of this type of product is shoddily designed may reflect the recognition of the irresposibility of such an activity, and the lack of personal achievement derived by the designer, when designing 'gimmickery'.

These 'gimmicks' and 'status' objects penetrate every aspect of society. Take for example the areas of entertainment and leisure.

Fantastic inventivness is poured into music and entertainment and almost no creative effort is made to deal for example with some of the less newsworthy needs of the disabled. Likewise in the leisure sector, a lot of equipment is knowingly made as 'machines of illusion', which are intended to look as if their owners were experts or professionals.

This raises another point concerning possession. The 'need' to possess something because somebody else has it can be extremely powerful, whether it comes from a golfer who cannot have the latest battery operated caddy or from a boy who cannot have a skateboard.

The emphasis in all these developments has been in encouraging consumption - upon enticing, persuading and almost bullying us to buy , and very often to pay later. Our desire to 'keep up with the Joneses' our need for stimulation,

and none of us lack these characteristics completely have all been worked upon and encouraged by marketing experts who must do all they can to keep the great modern mass-production complexes at work.

Every individual is therefore encouraged to consume and their attitudes are swayed to this end by those who stand to benefit most. In general peoples 'wants' are created and supplied rather than addressing their real needs.

Are we then simply a never ending supply of consumer addicts at the merciless prey of product pushers ? Design and quality play an important positive part in breaking down this structure. This point may be highlighted by the competitiveness between American and Japanese products.

It is widely recognised that the United states is the home of 'gimmick' design. It is also recognised that Japanese products are among the most successful, commerically in the world today, due in no small part to the amount of invention, innovation and careful consideration in their designs. US design recruitment specialist Rita-Sue Siegal comments

> " Many U.S. firms believe second rate design suits their market. It does - until a competitor comes along with first rate design and changes the game."

U.S. industry is being 'out-designed' by international rivals. Perhaps the message behind this is that quality competes globally !

Moreover our attitudes towards things reflect basic value judgements. Nothing could be more dramatic than the difference between new breed of little girls who cheerfully turn in their barbies for the new improved model and those who like their mothers and grandmothers before them clutch lingeringly and lovingly to the same doll until it disintegrates from sheer age. In this

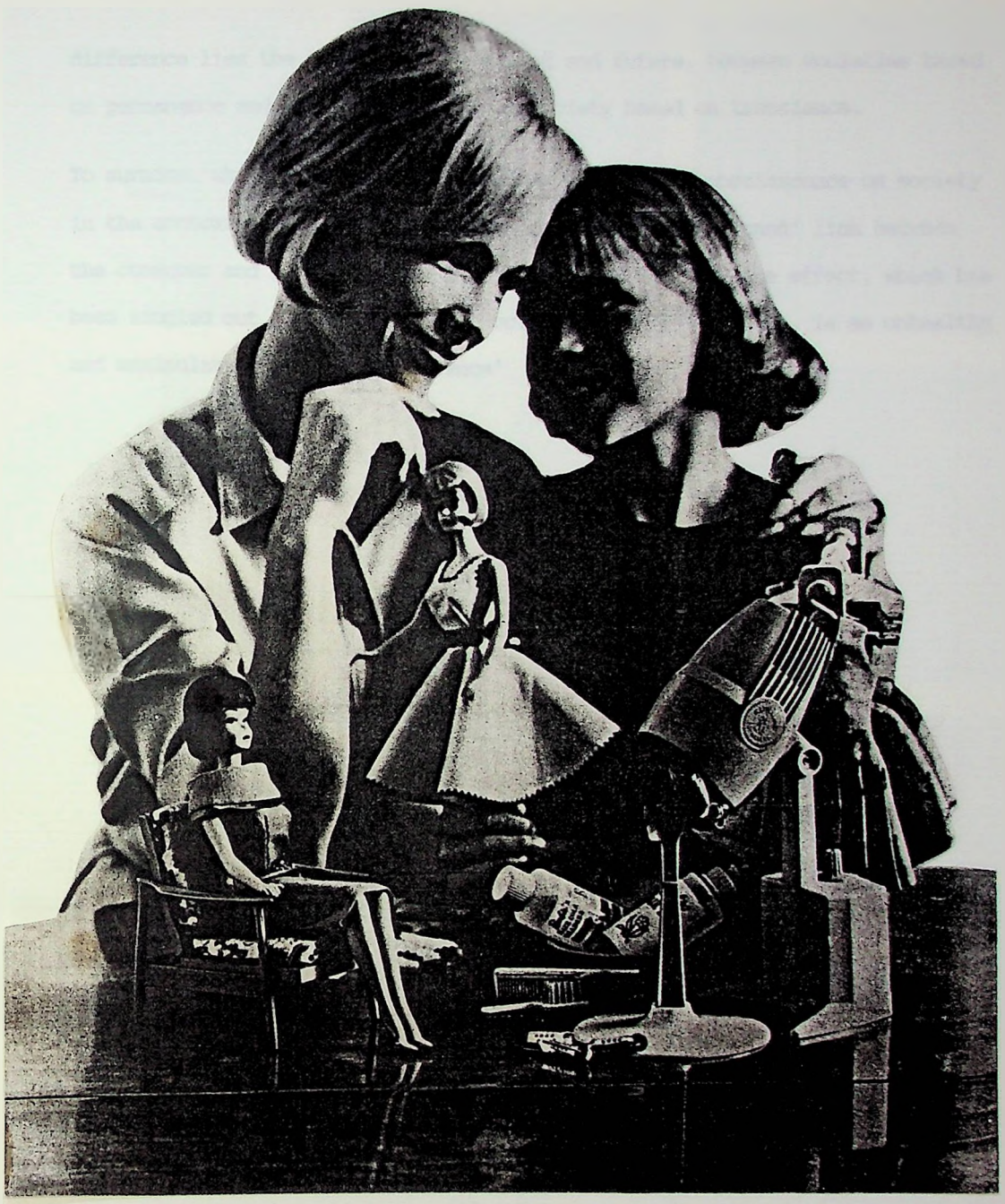


FIG 7. *Barbie by Mantel*

difference lies the contrast between past and future, between societies based on permanence and the new fast forming society based on transience.

To surmise, what is the 'cause and effect' of planned obsolescence on society in the context outlined ? The cause is the 'supply and demand' link between the consumer and industry, as discussed in chapter five. The effect, which has been singled out as most affecting social and consumer trends, is an unhealthy and manipulated 'status obsolescence'

The Manufacturer

FIG 8.

7. THE MANUFACTURER

In this context the term manufacturer refers to those with a high economic interest or gain in the manufacture of a product. This being distinct from consumers who ultimately buy the product or designers who conceive and co-ordinate the product.

Where does the skill of the designer fit within this ?

Industry can no longer afford to use highly trained craftsman as production line workers to produce individual consumer products. Skill has been promoted to the production of the tools and machines that are used to make the individual components, and the shopfloor worker is nowadays more generally concerned with the supervision of this machinery and assembling the component parts of the final product. Responsibility lies therefore with the designer in creating these products yet ;

> " Most things are not designed for the needs of people but for the needs of manufacturers to sell to people. "

Are manufacturers at the end of the line or are they in turn influenced by another group of people, distributors.

Distributors will often be impatient of a producer who fails to keep up with what they perceive as changes in demand. They do however have to suffer from having to perceive potential demands through the eyes of the consumers whom they meet and this view is inherently biased towards small variations from what exists because the consumer has no worthwhile experience of anything else. So consumers are persuaded to buy what they think they need and are happy to accept 'change' which is ultimately controlled by the manufacturer as

he desires.

These changes vary from simple style and fashion changes to radical technological changes. For example the principle of laser light conceived in 1960 was being employed in marketable products barely ten years later. But this could not have happened unless willing users of these products had been found to buy them.

Another example in the light of technological advances is the development of new materials. Initially plastic materials were used as a substitute for others. As the industry and its materials developed they became a replacement for those that had become too expensive or required factory floor skills which were beginning to decline as the face of industry changed.

Today we have magnesium alloy bicycles, carbon fibre skies and plastic kettles. The use of new materials in product design is increasing but still not widespread. Who benefits most from the development of such products ?

The manufacturer is financially rewarded quite handsomely with profits in the millions not being unusual. There are risks of course, high initial investments and the fact that production costs can be highly sensitive to very minor changes of detail design. These are offset by the continual exploitation of a lucrative consumer market.

Industry today by way of its manufacturers, can turn technological advancement, as with the example of new principles and new materials, into financial gain. They try to keep up with what they perceive as changes in demand and indeed create or 'demand' change as well. Design plays a subservient role as "most things are not designed for the needs of people but for the needs of manufacturers to sell to people".

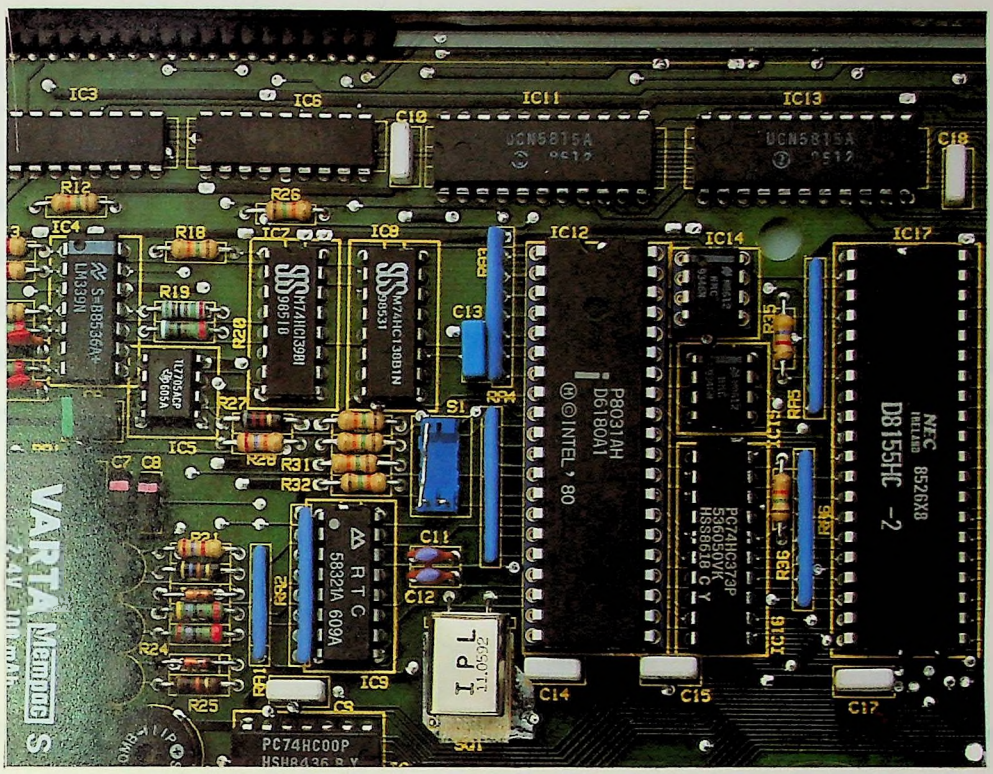


FIG 9. Electronic Circuit Board

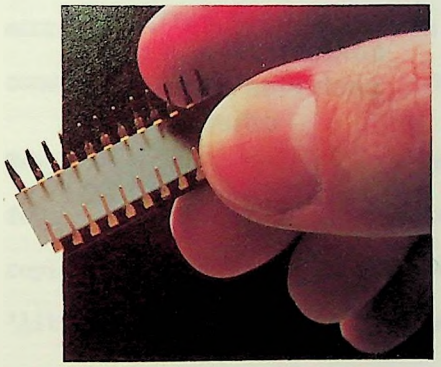


FIG 10. A Single Chip

MINIATURISATION

FIG 11.

POCKET SIZED SLIMLINE WATCHMAN

8. TECHNOLOGY OBSOLESCENCE

Our technological environment is filled with product "addicts" or "consumers", as Raymond Williams describes them in 'Towards 2000'. People who accept the inherent disposability of products. Yet product addiction is relatively new, a development of the post war years. Product junkies are as numerous in West Germany, Holland Canada and Japan as in America. At present even in the middle of a recession people are still hooked on buying and filling their homes with useless gadgets.

What are the driving forces behind this array of gadgets ? Are new technologies being employed for the sake of it or for the 'good' of the consumer ?

In many product areas, especially consumer electronics, technology has become so miniaturised and standardised that it amounts to little more than a few microchips - what the electronics industry calls a 'black box'. There are considerable advantages to such developments.

Take for example a well known 35mm camera, the Canon AE-1. It is made with 300 fewer parts than the model it superseded. An amazing 175 of these were replaced by a single Texas instruments chip. This also leads to modularity as 'little black boxes' replace mechanical workings.

But modularity has been around for some time before this and may be directly combined with disposability as in the example of the simple ball-point pen. The original goose-quill pen had a long life expectancy, and could be resharpened or repaired from time to time to extend its life. The fountain pen however was a great technological advance because it gave the user mobility by providing a writing tool that carried its own inkwell. The invention of the

ballpoint consolidated and extended this advance, which finally resulted in a pen that was so cheap that it could be thrown away when empty.

The application of modularity in this example eventually resulted in a unique disposable product. The more general effects of this principle stem from the fact that in a modular system there are more parts than whole units. And whether one is shifting them around to create new whole units or discarding and replacing them, the user experiences a more rapid through-put of things through his life and a generalized decline in the average duration of his use with things. The result is a new mobility and transience, a disposable product perhaps made of three parts that can be arranged to do six different things.... Multi-part, multi-disposable, multi-functional.

New products that are modular and 'Multi-functional' have become the slogan of the electronic age. Radios with T.V.'s, radios with cassette recorders and TV and many other combinations are produced. The multi-functional concept takes diverse forms, however many of the industrial products churned out today go beyond the rationale of convenience. Any extra 'something' that may capture potential users is immediately incorporated into a new product.

Kenji Ekuan of GK Design in Japan refers to it as 'excessive service or playfulness.'

> " These products embody, sometimes overly, considerate services and care in a fashion typical of Japanese society. "

How do consumers cope with this 'excessive service or playfulness' They are ultimately given ways of keeping up with the consumption of this 'playfulness' by widespread use for example of 'renting 'or 'buy now pay later' tactics.

MULTI-FUNCTIONAL

FIG 12. Pocket Knife

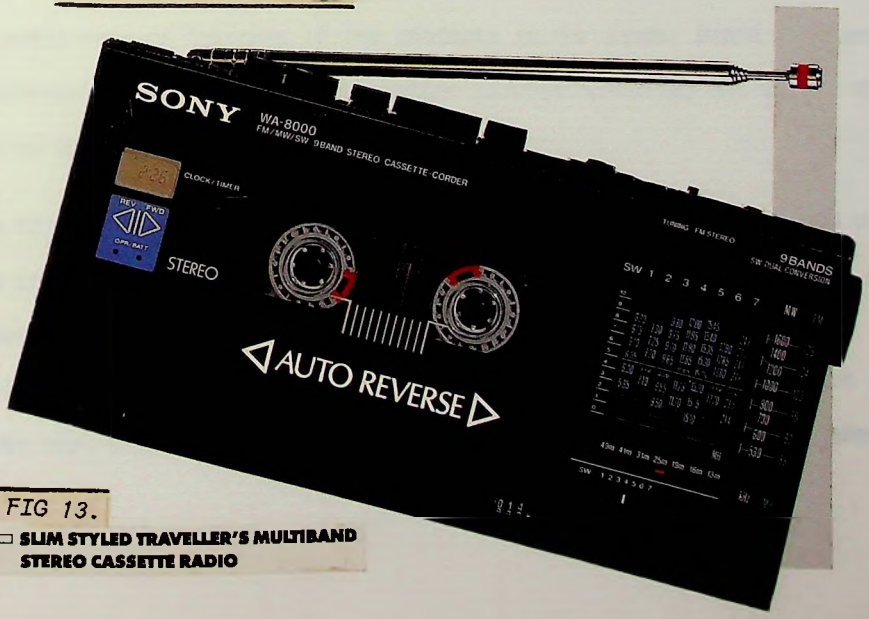


FIG 13.

SLIM STYLED TRAVELLER'S MULTIBAND STEREO CASSETTE RADIO

Renting has the net effect of multiplying the number of people with successive use of the same object, and thus reducing on average the duration of the relationships. When we extend this principle to a very wide range of products it becomes clear that the rise in rentalism parallels and reinforces the impact of modularism and throw-away items.

The impact of these methods is most notable on our attitudes towards products. When we want something we get it because it is easy to obtain, and we don't intent to keep it for long. No wonder annual 'crazes' or 'fads' sweep the country so successfully. Several spring to mind, the hula-hoop, the rubicks cube - they went as fast as they came the supplier making his quick fortune and moving onto something else.

One could continue to give examples not only at attempts of a quick fortune but of a continuous fortune where there is no doubt that some businessmen conspire to shorten the useful life of their products in order to guarantee replacement sales. There is similarly no doubt that many of the annual model changes with which American and other consumers are increasingly familiar are not technologically substantive as with cars.

Nevertheless these reasons by themselves cannot begin to account for the fantastic rate of turnover of the products in our lives. Rapid obsolescence is an integral part of the an accelerative process involving not merely the life span of sparkplugs, but of whole societies.

With this in mind one must remember a certain amount of obsolescence occurs with or without 'planning'. When a more effective or energy conscious product is developed the old one is superseded and usually eventually becomes obsolete. Take for example the telephone industry and the replacement of copper wire with fibre optics. The comparisons are staggering. It takes about

one thousanth the energy to manufacture optical fibre than it takes to dig, smelt, and process an equivalent length of copper wire. The same ton of coal required to produce 90 miles of copper wire can turn out 80,000 miles of fibre!

Obsolescence also occurs when a product literally deteriorates to the point that it can no longer fulfil its functions- bearings burn out , fabrics tear, pipes rust. At this point its replacement is required. Technology can be used constructively here to improve the situation and it is in this area that obsolescence takes its rightful place in society. the danger lies in becoming 'planned' and infiltrating the fabric of society for financial gain.

In a lot of cases technology is used playfully, at the same time rented or modular products can lead to standardisation and an overdependance on past technologies.

The net effect is that products are designed for the manufacturer rather than the consumer, where technology provides the back bone. Clearly this has many benefits but the misuse or 'playful' use of technology has the side effect of debasing new advancement to the level of 'gimmick' design. The pressures for massive economies of scale will continue to tempt companies to have their products 'designed' in this way.

As the manufacturer experiments with technology and faster ways of making money the consumer is reduced to guinea pig. Is the designer any help to the situation ? .....

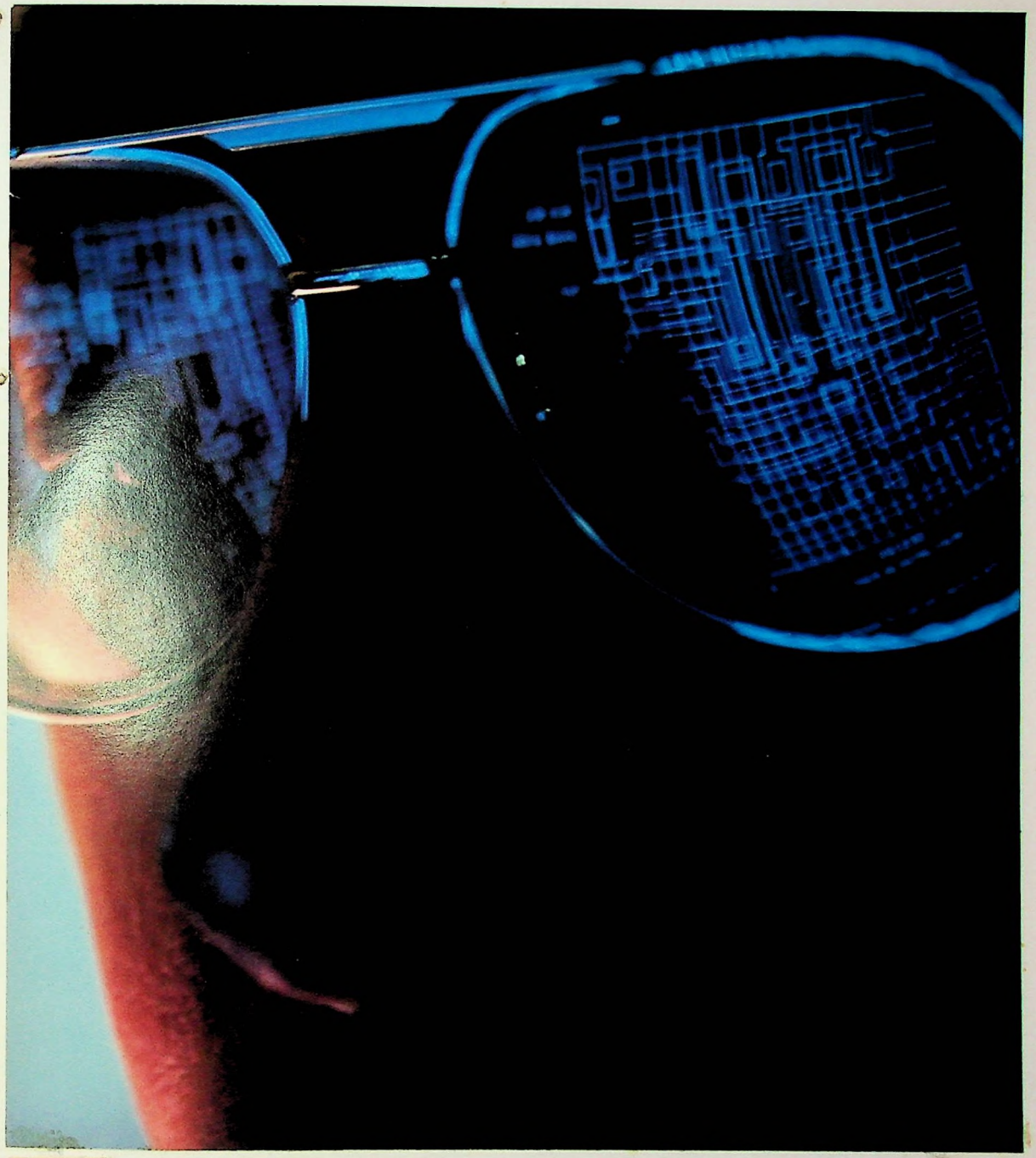


FIG 14.

○○○ The Designer

9. THE DESIGNER

The international congress of societies of industrial design adopted the following as a definition of an industrial designer ;

> " One who is qualified by training, technical knowledge, experience and visual sensibility to determine the materials, construction, mechanisms, shape, colour, surface finishes and decoration of objects which are reproduced in quantity by industrial processes..."

The majority of people who are responsible for the creation of our living environment are still not really aware of the task entrusted to them. This is true for every sector of environment formation, just as it is true for the creation of industrial products.

Within this context design is at present largely a case of the blind leading the blind, the designer seemingly not knowing what the people want and the people seemingly knowing what they want only when they see it on the shelves, but in the meantime putting up with what is there.

Victor Papanek outlines some selling points of products today in "Design for Human Scale", one of which is "its brand new and does things fast." Here the designer is partly to blame again "confusing the consumers choice and banalising her sensibilities" There is no reason why the products should not look new, different, exciting, but to do this as a purely styling salesmanship exercise undermines all the social responsibility and moral integrity of the designer.

Yet it became something of an axiom in the 1950's at least in the United States that the consumers values lay at the heart of all good design. For

example on american designer David Chapman stated in 1957

> "I am convinced that the search for successful product development does not start with a study of manufacturing processes, merchandising techniques, cost accounting or analysis of competitive merchandise.... the industry must get to the roots of the problem and study people and their way of living."

Has the responsibilities or attitudes of the the designer today in general changed so much, or is perhaps the designer being ~~constantly~~ being entangled by the environment he creates ?

10. ARTIFICIAL OBSOLESCENCE

With so many similar products in our supermarkets, the "look" of a product or shelf appeal becomes important in the battle for sales. Industrial design in this instance can be used as an effective marketing tool, however there is a danger to ;

> " Become the purveyors of trivia the tawdry and shoddy the inventors of toys for adults.... "

With the advent and widespread use of plastics came another responsibility for the designer, that of proper use of materials. The beginning of the plastics age witnessed the inappropiate use of many of its newly invented formulas.

Many products were made either to a design not suitable for plastics or, alternatively in an inappropiate type of plastic, often with disastrous results. Buckets literally collapsed when filled with boiling water, ashtrays began to disintegrate when in contact with hot cigarette stubs. Extending this point leads to unresponsible design.

This idea of the duty and responsibility of design has along tradition in Germany. Deutscher Werkbund, Bauhaus, Hochschule fur Gestaltung, Ulm are three institutions which have made many and varied efforts to promote this concept.

Are designers because of the everdecreasing product development times from drawing board to shop floor, avoiding the responsibility of predicting the consequences of product failure. The fact that it may be designed quickly and used as a disposable or throw-away object seems to unfairly, outweigh, to my mind, the overpowering realisation that one crucial mistake in its design - just one - could affect millions of consumers.

revealed that about one in 50 of the lights was coming apart, fol-

12 000 in the seven weeks

that Duracell tried a gimmicky, eye-catching approach,

FIG 15. Add for Durabeam recall

Take for example a recent recall of Durabeam cyclelights by the manufacturer because they were 'coming apart' during use. Raj Mathur senior product manager

> " thinks that Duracell tried a gimmicky, eyecatching approach, and did not concentrate sufficiently on the peculiar problems of cycle light design. "

About 12,000 were sold in the seven weeks before the recall. Bearing in mind cycle lights are used for safety at night as well as visibility, 12,000 unsafe lights could result in a lot of fatal accidents - Is even one worth it ?

This is a present day example. Both this and many others can be traced to historic developments which paved the way for many of todays situations which are taken for granted. The car provides one of the most evident and somewhat startling examples.

The Benz car factory was founded in Mannheim in 1883 and within two years the first automobiles powered by internal combustion engines began to appear. Initially cars were such a radical innovation for the consumer that novelty alone determined their appeal and their appearance were drawn straight from the horse drawn carriages they were about to supersede.

This is typical of the beginnings of the cart industry and coupled with mass production the car eventually became accessible to everyone. This naturally led to a saturated market, in 1927 in the United States car sales surpassed those of 1926 by only five percent.

What then ? Wait for a technologically better car or instead create a desire and market for the continual supply of these cars. The designer flying the flag of 'style obsolescence' promised to solve these problems of over production.

FIG 16. What does 'This years' car boast

BELIEVE IT OR NOT THESE CARS ARE ALL DIFFERENT

General Motors led the drive to introduce preplanned or artificial obsolescence to the industry, defined in the words of Charles Ketterin of the GM research division as

> " The organised creation of dissatisfaction. "

The startling aspect of this development is not only the use of design and the designer in carrying this out but that this trend continues to this day. Design in this area has fallen into a 'rut' from which it is struggling to break free.

This contrasts sharply with the computer industry where according to computerworld magazine

> " If the auto industry had done what the computer industry has done in the last 30 years, a Rolls Royce would cost $2.50 and get 2,000,000 miles to the gallon. "

Indeed any advancements which have been made in the car industry are dwarfed with this comparison. The point being that design used solely as a marketing tool is being robbed of its ultimate potential for advancement.

Quality also becomes more difficult to attain and to maintain. While in a jewellers recently I enquired as to how well the 'new' rock watches were selling. I was told they never got off the ground because of competition with their 2.99 imitations made in Taiwan and sold on street corners.

Who needs the real thing anyway ? Why bother spending 90 on something when one can get something that looks like it for 2.99. A healthy competition in price is understandable, but with cheap imitations.....?

Are we suffering from 'status symbol' desires, a use of plastics for imitating materials, a lack of money, or an abundance of people who design such

imitations for the simple reason of ripping off a known quality item ? The latter being nearer the truth.

In this case again design is being used badly as a marketing tool to sell imitations except it not only has the effect of stagnating further development but also of debasing the quality item it imitates.

This leads back to the previous point of the responsibility of designers and their use solely as a marketing tool. Used badly it debases the fabric of design and is robbed of its ultimate potential for advancement to become,

" .....the purveyors of trivia..... "

11. SOCIAL ECONOMIC AND DESIGN SUMMARY

The previous chapters on society, economics and design in relation to planned obsolescence have barely scratched the surface of what may be seen as a complex and intertwined area. However many important issues surrounding this topic have been raised and questioned in terms of their effect on product design and in particular their impact on quality.

The consumer once regarded on an individual basis with items being 'made to measure' is now viewed as being part of a mass market. There is indeed nothing wrong with this in itself, the problem arising when manufacturers create and supply markets using planned obsolescence for financial gain.

By aiming new products at particular market segments, for example those who own a Mercedes and play golf, one can then create the 'desire for possession' within this and use 'planned' obsolescence to ensure demand by perhaps making the product disposable.

This is but a single simple example taken to illustrate the relative ease by which new markets can be created which in effect result in a more thorough bombardment of 'the consumer' by a wide range of products. 'Planned obsolescence' is used within this to ensure an adequate turnover of largely unwanted or unneeded items. Its destructive effect on society is highlighted by status obsolescence and its associations.

So if planned obsolescence in general has a destructive effect on society with usually only the manufacturer achieving financial gain why are these products designed in the first place ? Where does design stand ?

Industrial Design and the design profession have since the second world war rooted itself in the very heart of mass marketing, which has raised many questions about the social context of design. This is highlighted by a point Penny Sparke makes in 'Consultant Design' referring to

> " ... a suspicion that the designer has sold out to big business and is therefore no longer of any real use to society other than as a prop for the economic status quo. "

Since the 1950's isolated voices have attempted to articulate the evils of design backing a market economy, particularly where this involves illmanaged and unnecessary 'planned obsolescence', rather than working with the consumer and his 'real' needs.

Vance Packard in his book 'The Hidden Persuaders' was highly critical of this point and wrote :

> " ... that we must consume more and more whether we want it or not for the good of our economy. "

and was also critical of the industrial design profession for

> ... failing to stand outside the pernicious cycle of object obsolescence and increased sales.

So economics tend to have a rampant upper hand and as Victor Papanek in his extended argument against the design profession 'Design by Choice', claims, that all it really produces is 'toys for adults', and that it avoids all the real design problems that confront the world we live in.

This directly affects the quality of products not only in their construction and materials but more importantly in their usefulness and the value of this use.

There are exceptions, as in the medical and food industry where disposability contributes to sterility and hygiene. But these innovative and appropriate uses are dwarfed by multiple examples of rampant misuse.

To briefly surmise the manufacturer plays a dominant role in exploiting a lucrative consumer market while design takes a somewhat subservient role. Consider further the subject of quality.....

12. OBSOLESCENCE vs QUALITY

Quality is defined in a glossary produced by the european Organisation for Quality Control as

> " The totality of features and characteristics of a product or service that bears upon its ability to satisfy a given need. "

It is the very characteristic of quality in a product that is most affected by planned obsolescence, yet it is attention to quality that is pointing the way forward for many new and enterprising companies. The battle of obsolescence vs quality gains momentum as consumers are given the choice literally between good design and bad design, resulting in consumers becoming more quality conscious and design conscious.

The struggle however is far from over. Yet its impact is widely seen as in for example the comparison between the relative success's of American and Japanese firms.

Pfactzgraff, the American tableware giant is now because of decreased sales due to imports, contemplating export for the first time in 200 years. Product development chief Paul Helgesen commented,

> " US industry has been spoiled for a long time (home volume). .....consequently we've not trained our industrial designers and manufacturers to compete globally. "

This large home volume deluded American corporations for a long time into thinking they didn't need to bother about the design implications of international competition. But now as European and Japanese imports flood into the US and the sinking dollar makes US goods more attractive abroad, the rules have changed.

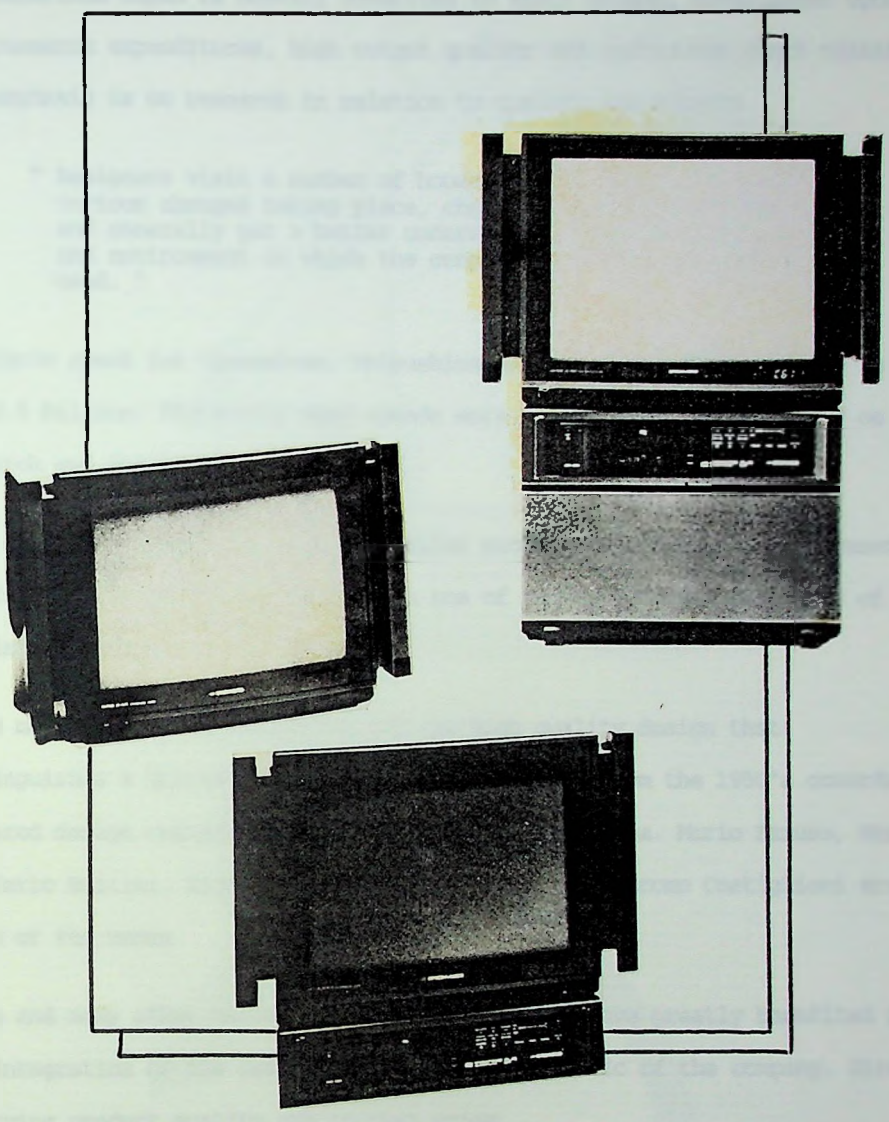


FIG 17. *Brionvega's Sintesi 25 Colour TV set designed by Mario and Dario Bellini 1986*

In comparison Japan is heavily committed to short product development cycles, big research expenditures, high output quality and continuous staff training. The emphasis is on research in relation to quality and society.

> " Designers visit a number of households to take account of various changes taking place, check on leisure activities and generally get a better understanding of the lifestyle and environment in which the companies products are being used. "

The facts speak for themselves. Matsushita employing 160,000 had sales in 1987 of 12.5 billion. Similarily Sony spends more than 500 million annually on research and development alone !

Many other companies have enjoyed similar success. For example Milan based manufacturer Brionvega has emerged as one of the worlds leading makers of stylish television sets.

It is not the leading technology but the high quality design that distinguishes a Brionvega product from its rivals. From the 1950's onwards it has used design consultants to assist its in house team. Mario Zanuso, Mario and Dario Bellini, Richard Sapper, Achille and Piergiacomo Castiglioni are but a few of the names.

These and many other varied and diverse companies have greatly benefited from the integration of the design process into the fabric of the company, directly improving product quality and in turn sales.

It may be said therefore that quality, even though most affected by planned obsolescence, is the edge that's needed in todays competitive situation to restore some sense of balance to the design, economics and social implications of products.

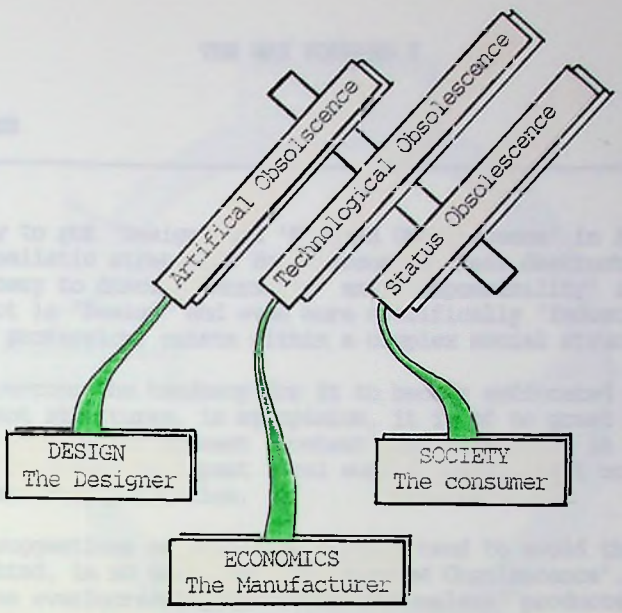


FIG 18. Contributing factors to Obsolescence

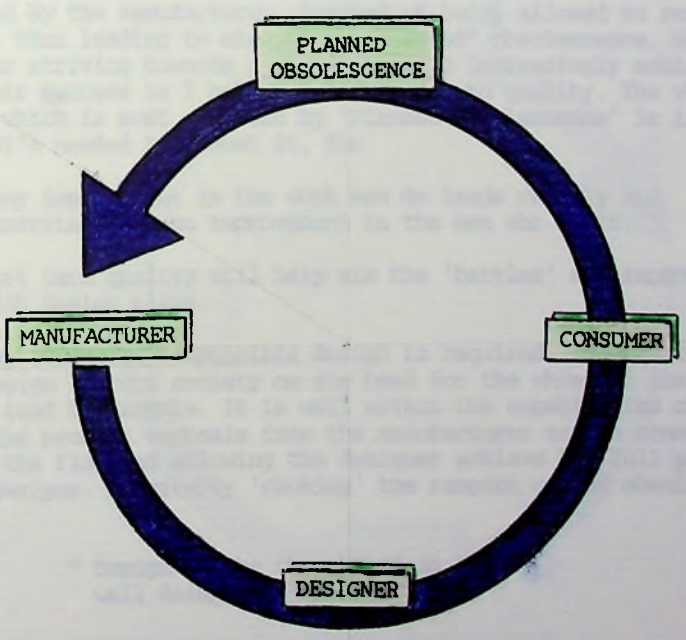


FIG 19. Present Structure and 'Flow'

14. CONCLUSIONS

It is very easy to put 'Design' and 'Planned Obsolescence' in inverted comma's and discuss idealistic strategies for overcoming their destructive tendencies. It is just as easy to discuss 'Morality' and 'Responsibility' in the same breath. The fact is 'Design' and even more specifically 'Industrial Design' as with any other profession, exists within a complex social structure.

In trying to overcome the tendency for it to become suffocated and manipulated by these dominant structures, in my opinion, it is of no great benefit to either divorce it from its present 'context' and thus allow it to develop its own, or to try to revert to a past ideal such as being craft orientated as opposed to modern mass production.

Both of these suggestions as with many others, tend to avoid the present issues highlighted, in no small way, by 'Planned Obsolescence'. We are surrounded by an everincreasing multitude of 'useless' products we don't 'need'. Things become 'out of fashion', 'out of keeping with social status, mod-cons, and the 'Jonses'','out of date with 'technology'','out of batteries.....?!!' the list is endless.

Where does design fit in. Industrial design is a service, presently a 'link in the chain' between the manufacturer (encompassing economics and technology) and the consumer, where the manufacturer plays the leading role.

At present design is one of the weakest links in the chain. It is being manipulated by the manufacturer, instead of being allowed to reach its full potential, thus leading to misuse and 'planned' obsolescence. Many designers are however striving towards a better end and increasingly achieving it. The key to their success is I believe largely due to quality. The very essence of 'Quality' which is most affected by 'Planned Obsolescence' is ironically the weapon that's needed to combat it, for

> " Any improvement in the work men do leads rapidly and inevitably to an improvement in the men who do it. "

In the short term quality will help win the 'battles' and improve the role and 'link' which design plays.

In the long term more responsible design is required. However it is not the role of design to turn society on its head for the whims of its ideals, but rather to lead by example. It is well within the capabilities of the designer to shift the present emphasis from the manufacturer to the consumer thereby reversing the flow and allowing the designer achieve the full potential of 'useful' designs. Inevitably 'choking' the rampant use of obsolescence. To this end

> " Design may be thought of as the well doing of what needs doing "

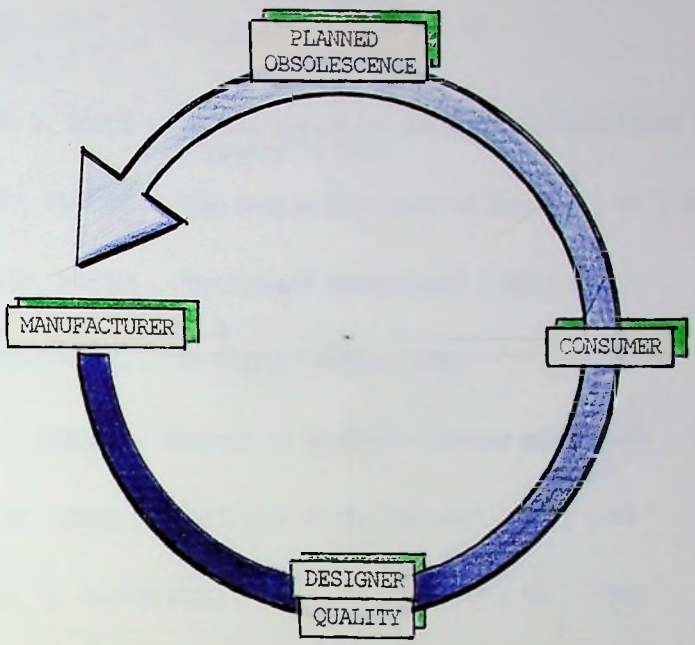


FIG 20. *Increasing Quality and reducing the benefits to the manufacturer.*

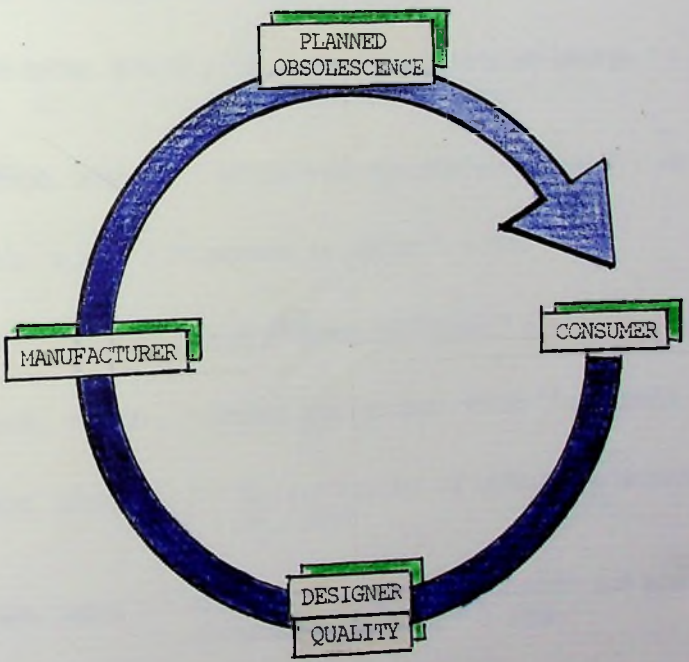


FIG 21. *Reversing the 'Flow'..... Obsolescence in its place !*

BIBLIOGRAPHY

BOOKS

ARCHER L. BRUCE ; "Design Awareness and planned creativity in industry" ; 1974

BAYLEY, STEPHEN ; "The Conran Directory of Design" ; UK ; 1985

CADBURY, MARTIN ; "Design and Technology" ; UK ; 1975

DESIGN COUNCIL ; "On Design" ; UK ; 1986

FORTY, ADRIAN ; "Objects of Desire" ; Thames and Hudson ; 1986

HILLER, BEVIS ; "The Style of the Century" ; US ; 1983

JONES, J. CHRISTOPHER ; " Design Methods " ; UK ; 1980

LANGDON, RICHARD ; " Design and Industry " ; UK ; 1984

LORENZ, CHRISTOPHER ; " The Design Dimension " ;

LUCIE-SMITH, EDWARD ; " A History of Industrial Design " ; Phaidon ; 1983

MARCHAND, ROLAND ; " Advertising the American Dream " ; US ; 1985

MAYALL, W.H. ; " Principles in Design " ; 1979

MULTIVISION I ; " The Principles of Design " ; US

PAPANEK, VICTOR ; " Design for the Real World " ; Paladin ; 1974

PIRSIG, ROBERT M, ; " Zen and the Art of Motorcycle Maintenance " ; UK ; 1974

SPARKE, PENNY ; " Consultant Design : the history and practice of the designer in industry " ; 1983

SPARKE, PENNY ; " Design Source Book " ; UK ; 1986

THRING, M.W. ; " Man Machines and Tomorrow " ; Routledge and Kegan Paul ; 1973

TOFFLER, ALVIN ; " Future Shock " ; Pan ; 1971

TOFFLER, ALVIN ; " The Third Wave " ; Pan ; 1980

WILLIAMS, RAYMOND ; " Towards 2000 "

MAGAZINES

" DESIGN " ; Feburary 1987

" DESIGN WEEK " ; Feburary 1988

" INNOVATION " ; USA 1985

ARTICLES

VALE, JOHN ; " Designing for moulded plastics in the Post-War period

REFERENCES

1. REYNAR BANHAM
5. CADBURY, MARTIN ; " Design and technology "
8. BANHAM, REYNAR
9. KARL MARX
10. SIEGAL, RITA SUE ; - US Design recruitment specialist
11. PAPANEK, VICTOR ; " Design fot the real world "
12. EKUAN, KENJI ; of GK Design
13. International Congress of societies of Industrial Design
14. CHAPMAN DAVID ; - US designer 1957
15. PAPANEK, VICTOR ; " Design for the real world "
16. MATHUR, RAJ ; - senior product manager in durabeam
17. KETTERIN, CHARLES - GM research
18. " Computerworld magazine "
20. SPARKE, PENNY ; " Consultant Design "
21. PAKARD, VANCE ; " Hidden Persuaders "
22. " " " "
23. European Organisation for Quality Control
24. HELGESEN, PAUL ; of the US Pfactzgraff company
25. Report on Japanese success
26. MORRIS, WILLIAM

details