Toward a Throw-Away Culture.
Consumerism, 'Style Obsolescence' and Cultural Theory in the 1950s and 1960s

NIGEL WHITELEY

The 1960s are often thought of as the decade of disposability. Expendability was indeed a central aspect of much of the culture of the 1960s: it was both a physical fact of many products, and a symbol of belief in the modern age. Obsolescence was not only accepted by the fashion-conscious young, often it was positively celebrated. An awareness of the role, meaning and significance of expendability is, therefore, crucial to a full understanding of 1960s' culture. But 'style obsolescence' was not a 1960s' invention: it can be traced directly back to the 'high mass-consumption' stage of post-Second World War consumerist America, and has its origins even earlier in the century. This paper describes the development and workings of the American socio-economic system of 'style obsolescence'; examines how the system was analysed by some critics and theorists and raised to the level of a prescriptive cultural theory; and discusses how the cultural theory and the system of obsolescence continued or changed in the 1960s.

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The idea that one disposes of artefacts or products before one actually *needs* to in order to buy a more up-to-date or desirable version is at least as old as consumerism and capitalist society, but it is only in the twentieth century that products themselves have been designed and manufactured with some form of conscious style obsolescence.

In America in the later 1920s and during the Depression, manufacturers found that a designer or, more commonly, a stylist could give a product what is now called 'added value', but what was then termed 'eye appeal'[1] — in other words the stylist could make a product more appealing, more desirable, and so more likely to be purchased than its competition. To achieve this the American designer took as a starting point symbols that were understood — and enjoyed — by the consumer. In the 1930s those symbols were derived from transport and fast travel: hence the vogue for streamlining with its connotations of speed, dynamism, efficiency and modernity. The craze stimulated a wealth of stream-lined products for which the style was functionally unnecessary or even wildly inappropriate: radios, electric heaters, vacuum cleaners, irons, toasters, jugs, pans, light fittings, cash registers, even stapler

guns and — a *cause célèbre* — a pencil sharpener. In each case streamlining was, according to Sheldon and Martha Cheney in their 1936 book on *Art and the Machine*, used as a language, 'as a sign and a symbol of efficient precision'.[2] The advantage to manufacturers was pinpointed by an astute businessman: 'streamlining a product and its method of merchandising is bound to propel it quicker and more profitably through the channels of sales resistance'.[3]

Books, articles and statements by the first generation of American industrial designers such as Norman Bel Geddes, Henry Dreyfuss, Walter Dorwin Teague and Raymond Loewy may often have sought to justify their activities in terms of creating a better world by making products more efficient, easier to operate and (in today's language) more 'user friendly'. Ultimately, however, styling was about sales. When asked for his thoughts about aesthetics in product design, Loewy outlined his simple but unambiguous view which 'consists of a beautiful sales curve shooting upwards'.[4]

By giving a product a fashionable appearance, the designer was virtually guaranteeing it would look old fashioned in two or three years time, and so was building-in style obsolescence. In their influential book of 1932, *Consumer Engineering: A New Technique for Prosperity*, Roy Sheldon and Egmont Arens presented the case for a positive acceptance of style obsolescence by manufacturers. Rather than fearing it as the 'creeping death to his business', the manufacturer was beginning

to understand that [obsolescence] has also a positive value; that it opens up as many fields as ever it closed; that for every superseded article there must be a new one which is eagerly accepted. He sees all of us throwing razors away every day instead of using the same one for years. He turns in his motor car for a new one when there is no mechanical reason for so doing. He realizes that many things become decrepit in appearance before the works wear out.[5]

The manufacturer had to come to terms with the way consumers behave in order to plan and promote obsolescence or, as the authors somewhat euphemistically described it, 'progressive waste' or 'creative waste'.[6]

In his scholarly work on industrial design in America in the inter-war years, Jeffrey Meikle

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acknowledged that artificial obsolescence was 'always a major undercurrent in the thirties'.[7] Occasionally it surfaced fully-fledged. In 1932, for example, the manufacturing company Sears Roebuck commissioned Raymond Loewy to design a replacement for its old fashioned and boxy 'Coldspot' refrigerator. The new streamlined or *cleanlined* 'Coldspot' (Fig. 1(a)), introduced in 1935, made Sears Roebuck a sales leader in the industry. Restyled models appeared in 1936, 1937 and 1938 (Fig.1(b)–1(d)). Each new model may have exhibited only superficial modifications over the last, but these changes were the 'visual trappings of progress desired by consumers'[8] and they kept the company's sales high.

The American economic system was becoming increasingly dependent on high consumption as the means of creating wealth. Sheldon and Arens employed not only economic but also cultural defences for this system which they defined as 'The American Way':

Europe, without our enormous natural resources, whose land has been tilled for centuries and whose forests are hand-planted state parks, is naturally conservative in its philosophy of living. But on this side of the Atlantic the whole set-up is different. Not only are our resources greater; they are unsounded, unmeasured, many of them almost untouched . . . In America today we believe that our progress and our chances of better living are in positive earning rather than in negative saving.[9]

They admitted that the justification for their preferred system was not absolute but temporal: 'In time we may approach the European point of view, but that time is not yet . . . We still have tree-covered slopes to deforest and subterranean lakes of oil to tap with our gushers.' They further admitted 'We are perhaps unwise and enormously wasteful, as our conservation experts tell us', but concluded, in a rationalised way which actually avoided the ecological issue, 'we are concerned with our psychological attitude as an actuality'.[10]

In the 1930s most products, whether refrigerators or cars, were still far from 'saturation' level and many middle-income families were saving for their first one. But in the post-war period America moved into what has been called the 'high massconsumption stage':[11] the era of the advanced consumer — or consumer*ist* — society when
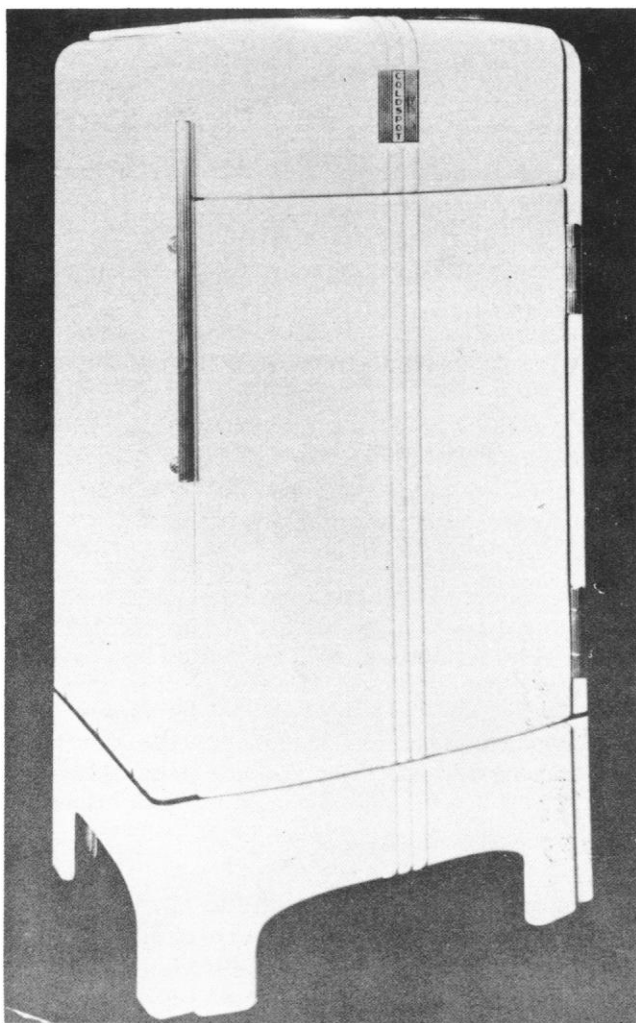

Fig. 1(a). Raymond Loewy. Sears *Coldspot* refrigerator, first design, 1935.
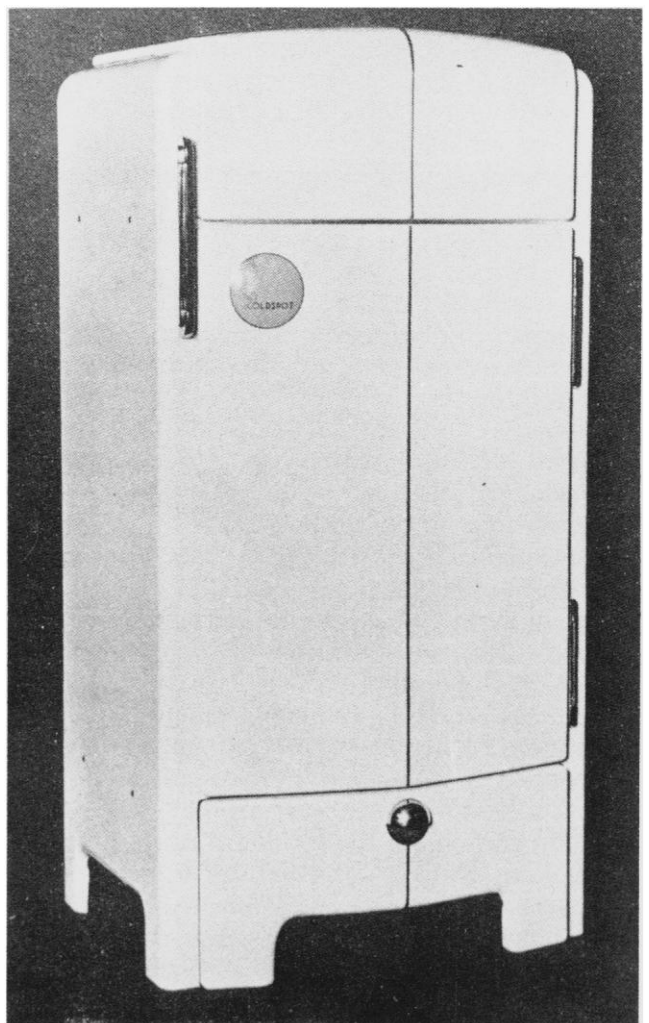

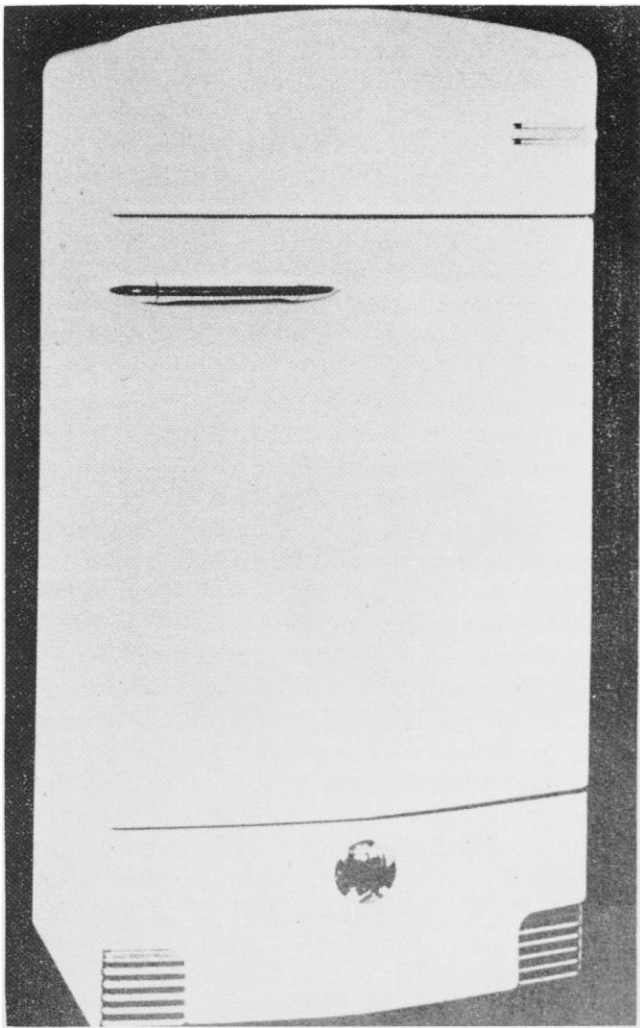*Fig. 1(b). Coldspot.* 1936 restyle.
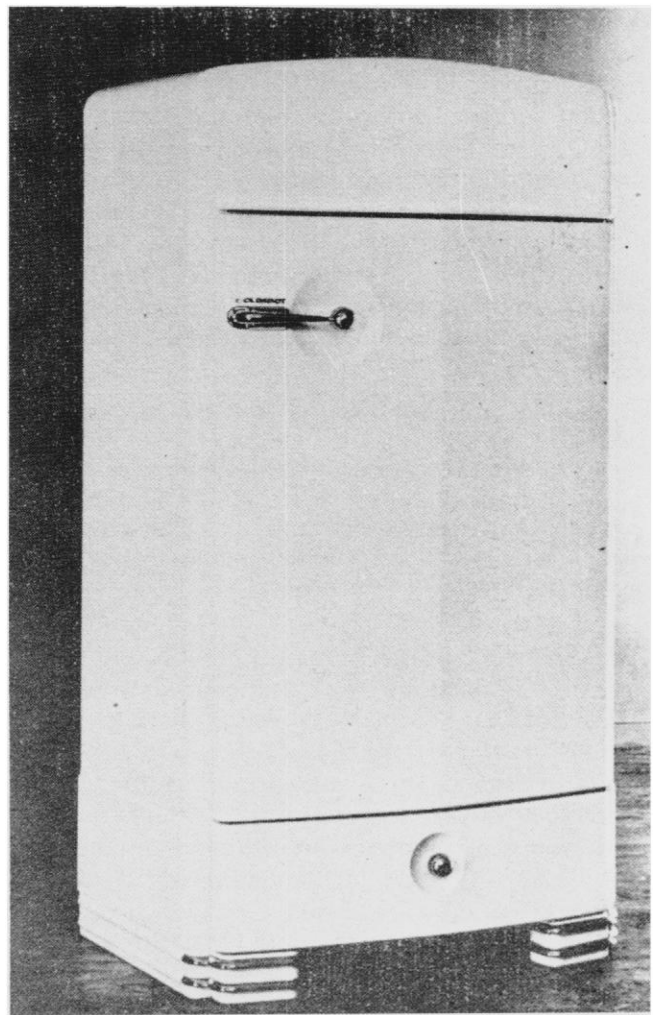
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Fig. 1(c). *Coldspot*, 1937 restyle.

Fig. 1(d). *Coldspot*, 1938 restyle.

saturation levels for many goods within middle-income markets *were* achieved. Average family income doubled in real terms between 1939 and 1945 and rose steadily thereafter. More significant still was income distribution. Economic historians agree that about half the population — not the poorest and not the wealthiest — enjoyed a *substantial* rise in their share of real income during and shortly after the Second World War, and that their share remained generally stable from then on. This redistribution to the burgeoning middle class meant an expanded market for homes, cars, appliances and services — a high consumption economy. Production of passenger cars rocketed from 2 million in 1946 to 8 million in 1955. Regis-trations followed suit, increasing from 25 million in 1945 to 40 million in 1950, 51 million in 1955, and 62 million in 1960. Six thousand television sets were manufactured in 1946 compared to 7 million sets in 1953, by which time two-thirds of American families owned one. High and frequent consump-tion was encouraged by the ready availability of credit. From 1946 to 1958, short-term consumer credit, most commonly used for buying cars, rose

from $8.4 billion to almost $45 billion. And in 1950 the credit card was introduced.

In less than a quarter of a century the American economic system had shifted from one based on scarcity and need, to one based on abundance and desire. The keynote of the system was high con-sumption and so the major problem, in the words of J. Gordon Lippincott in his forthright book *Design for Business*, published in 1947, was of continually 'stimulating the urge to buy'[12] once the market was saturated. Lippincott justified high consumption in a way which became standard in the 1950s: 'Any method that can motivate the flow of merchandise to new buyers will create jobs and work for industry, and hence national prosperity ... Our custom of trading in our automobiles every year, of having a new refrigerator, vacuum cleaner or electric iron every three or four years is economically sound.' But tied to this economic justification for obsolescence was a social one: 'Surely in no other country in the world can a worker earning $45 a week drive to his job in his own automobile. He enjoys this privilege only because of the aggressive selling methods of the American automobile industry.'[13] High

consumption and obsolescence were *democratic* because the prosperous middle-class consumer traded in last year's model for the new dream that money can buy, so passing down the line his 'style-obsolete'[14] model which continued a useful life 'until it finally hits the graveyard and becomes scrap metal for re-use in industry'.[15] Lippincott, totally committed to a 'free enterprise', 'capitalist' system, was not in the least coy in unequivocally stating that 'There is only one reason for hiring an industrial designer, and that is to increase the sales of a product'. He explained:

no product, however well its aesthetic functions are fulfilled, may be termed a good example of industrial design unless it meets the acid test of high sales through public acceptance. *Good industrial design means mass acceptance*. No matter how beautiful a product may be, if it does not meet this test, the designer has failed of his purpose.[16] [original author's italics].

The aesthetico-moral notion of 'good design' as it would be understood by a European Modernist was dismissed.

The social consequences of post-war America's consumerism, in the words of one historian, were, 'above all, the broadening of the "affluent society" and bourgeois mores and attitudes among the middle class'.[17] One of the hallmarks of middle-classness was suburban living. From 1950 to 1960, 14 out of the 15 cities with more than a million inhabitants actually decreased in size while the suburbs blossomed at an astonishing speed. By 1960 as many people lived in the suburbs as in cities. The new suburbs were relatively homogeneous in race and class: they were predominantly white and middle class comprising upper-lower, lower-mid, and upper-mid income groups. A 1959 survey of one suburb, Levittown (thought by many to be the epitome of suburbia), showed that only 12 per cent of the families earned under $5,000 and only 4 per cent earned more than $15,000. Two-thirds of the residents had annual incomes between $5,000 and $10,000. The consequence for design was major. With incomes within a suburb fairly equal, social status and prestige were communicated by *possessions*. Possessions, the most public of which were your house exterior and car, told the rest of the world who you were or, at least, how you wanted to be seen. In 1954 the sociologist Lloyd Fallers argued that competitive status seeking will always be keenest amongst the socially mobile middle class,[18] and it was this class which populated the American suburbs in the 1950s. The *role* of design in such a society becomes as much *social* as utilitarian: design is used as a social language to broadcast your status in society.

Car design and styling best illustrates this point. Up to the late 1920s, car design, dominated by Henry Ford, was based on an approach of scarcity and needs. Ford had introduced the Model T, the 'tin Lizzie', in 1908. Its cheapness was due to

quantity production facilitated by specialised production-line techniques, and this put it within the financial reach of middle-income Americans. As sales grew, unit costs and sales price decreased, so expanding the market for the car. Cheapness was possible only while the car remained essentially unchanged because any mechanical or styling alterations were bound to increase costs. Henry Ford was well aware of this and presumed an uninterrupted production of the Model T, if not for ever, then until it was technologically superseded.

However, in the later 1920s the ground rules of car design began to change. In line with the new strategy of 'eye appeal', styling became an important factor in consumer choice and, wrote Sheldon and Arens in *Consumer Engineering*, 'the tin Lizzie had obsolescence thrust upon her ... And neither lower prices nor proved ability to stand up under hard use could save the Ford when the American woman began to buy and drive the automobile'.[19] Whether the authors were right to (dis)credit women[20] with the change is debatable, but it is clear that the strategy of gradual but constant improvement towards technical perfection was replaced by the policy of continual styling changes to stimulate sales. Previously, styling had been confined to expensive, hand-produced cars for the rich and famous, but from 1927, Ford - with their Model A — and General Motors (GM), under the styling leadership of Harley J. Earl, introduced it into their mass-produced cars.

And so, early in its history, the car in America became a prestige commodity to possess with pride, rather than just a service to use. It was a potent symbol for Americans and, as post-war affluence enabled widespread ownership, the symbolic importance of the car increased and it became the *objet sans pareil* of American consumerism. The big and powerful cars of the 1950s were a manifestation of America's new-found 'super-power' status and worldly confidence: 'an accurate image', according to one writer, 'of post-war value immortalised in chrome and steel'.[21] A gleaming new car may have been a sign of financial success, but the make, model and age of the car was what really mattered because this announced to his or her peers the owner's position on the social ladder. The magazine *Industrial Design* summed it up neatly, describing the 1950s American car as a 'kind of motorised magic carpet on which social egos could ascend'.[22] In the GM stable the range was spread between Cadillac at the top end of the market, through Pontiac, Oldsmobile and Buick, to Chevrolet at the bottom. Each make had its own identity — expressed through styling features — so it could be immediately recognised. Social mobility could be gauged by what a consumer owned from one year to the next.

Style obsolescence was integral to the system. The underlying reason, as we have seen, was economic. In 1955 Earl unashamedly pronounced that 'our job is to hasten obsolescence. In 1934 the average car

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ownership span was five years; now it is two years. When it is one year, we will have a perfect score'.[23] The justification offered by manufacturers for style obsolescence was that 'the public demands it, [so] there must be born new ideas, new designs, new methods of making the automobiles of a coming year more beautiful than those of yesterday and today'.[24] The real motivation for consumers was social and the means were technical and visual. An abundance of gadgets, usually claimed as important innovations, were introduced throughout the 1950s. They ranged from air conditioning and softer suspension to electrically-operated windows and automatic headlight dipping. It was the new visual features, however, that clinched sales because they could be *seen*, not only by the owner, but by all the envious would-be owners. These visual changes, introduced annually, had their own logic based on evolutionary development. For example, a broad trend in the 1950s was for cars to become lower and longer. Regardless of ergonomic and safety considerations, the average car height dropped ten inches between 1950 and 1959. The pace of evolutionary change was crucial: if it was too slow, differences between last year's model and the next would not be perceptible (and hence there would be less incentive to buy); if it was too rapid, the manufacturer would run the risk of alienating potential customers by offering something too novel for their taste and of using up in a year or two evolutionary changes that could be spread over a decade. The changes had to be such that the consumer was dis-

satisfied with last year's model, but not disgraced or embarrassed by it.

The imagery and symbolism of car styling, in this decade of American pre-eminence, referred to technology and power. Jet travel and space exploration were the high technology dreams of the day and they provided a direct and popular source of styling for the 1950s' cars by way of bomb- or breast-shaped chrome protuberances on the grille, giant jet fins at the end of the car, 'ventiports' (hot air extractor holes) on the side of the engine, wrap-around cockpit-like windscreens, and science fiction-influenced dashboard and interior displays (Fig. 2).

During the 1950s the introduction of new models and body shapes had been hastened from three-yearly cycles at the beginning of the decade — the intervening years relied on modifications to trim and colour options — to, in GM's case, an annual cycle in 1957 and 1958. The evolutionary period of flamboyant styling described above came to its end at the turn of the decade when there was a move to a more restrained look with considerably less trim. Various reasons might be advanced as to why the era of the 'chrome monsters' came to an end. It might have been the inevitable end of that particular evolutionary development allied with Earl's retirement in 1959; the public's loss of enthusiasm for the imagery of jet travel and science fiction; or merely the need, in a society geared towards continual change and impact, for a *new* novelty. It could have been that the prestige of number one status had shifted from the car to other commodities; or that

Fig. 2. The 1956 Cadillac *60 Special* sedan.

the psychological need for self-assertion and status that the cars had facilitated was no longer necessary.

It is, however, clear that *no* fundamental change was taking place in the socio-economic complexion of American society. The 'American way' of design — high consumption, rapid obsolescence and design as a social language — remained intact. What the change in car styling *was* symptomatic of was a change in taste and, to a certain extent, outlook. The change focused around the attitude to built-in obsolescence. Throughout the 1950s, writers about design, like Sheldon, Arens and Lippincott, had sung the praises of obsolescence. This occurred not only in the more popular level books and articles aimed at manufacturers and retailers, but also in publications directed at the increasingly status conscious profession and the 'cultured' public. *Industrial Design*, for example, the nearest equivalent to the British *Design*, contained a number of articles from its inception in 1954 to the late 1950s supporting obsolescence. In 1955 even as astute a critic as Eric Larrabee approved that the 1950s' car had

taught its owners to consume, and its makers to produce, for an economy in which the strictures of historical scarcity no longer apply. It has made waste through overconsumption one of the indispensible gears of that economy, and has made it socially acceptable as well.[25]

And a year later the internationally-respected designer George Nelson was putting forward the view that 'What we need is more obsolescence, not less'.[26] Nelson too saw obsolescence as part of the 'American Way' of design, but 'only in a relatively temporary and accidental sense. As other societies reach a comparable level [of consumerism], similar attitudes will emerge'.[27]

This wholehearted commitment to obsolescence began to change around 1960. The principal counterforce emanated from the consumer protection movement which, like its British counterpart, distinguished between the promised and real performance of a product. Another was popular writers such as Vance Packard, who published three wide-selling books around the turn of the decade — *The Hidden Persuaders* (1957), *The Status Seekers* (1959), and *The Waste Makers* (1960) — which had a marked effect on the public's attitude towards manufacturers. The consumer was depicted as being manipulated through psychological brainwashing into buying functionally inferior goods with built-in *physical* obsolescence which he or she did not actually need. If Packard gave a glimpse of the seamier side of planned obsolescence, Ralph Nader in his exemplary *Unsafe At Any Speed*, published in 1965, exposed in clinical detail the malpractices and deceptions, including the disregard for safety, of the automobile industry. But the most convincing demonstration that attitudes were changing was the call in 1960 from none other than J. Gordon Lippincott, author of *Design for Business*, that 'The Yearly

Model Change Must Go'.[28] With the zeal of someone who has discovered his moral conscience for the first time, Lippincott declared he was disenchanted with the emotional intensity of a high-consumption society, and fed up with products whose performance had been sacrificed to appearance and which could not be repaired. The task confronting American manufacturers, retailers and advertisers in the 1960s was to give the impression of integrity and maturity, so building up trust and respect with the consumer, while maintaining the short-term economic advantages of a high-consumption economy. In polite professional circles, talk of 'planned obsolescence' was as discretely discarded as a three-year-old washing machine.

But, by the late 1950s, the 'American Way' had already made its impact in Britain in two inter-related ways: economic and cultural. The common mood of social idealism which flourished in the last years of the Second World War had resulted in a landslide victory for Labour, with its commitment to a comprehensive welfare state, in the 1945 election. Labour's term of office was, to a large extent inevitably, an austere time: resources were scarce, money was tight, and consumer goods were manufactured for export only. Basic foods and clothing were all strictly rationed until at least 1948 and, in many cases, until 1950 with the last controls removed only in 1954. It was against this background of frugality, impatience and even disillusionment that the Conservatives, under the leadership of Winston Churchill, were returned to office in 1951 with an electioneering promise to 'Set the People Free'. Individuals had been urged to 'make do and mend' and 'do without' for the sake of the nation since the beginning of the War, and now many thought it time that they reaped some material rewards for themselves. And so they did. During the 1950s private affluence substantially increased for a large majority of the population, particularly during the latter half of the decade. The average weekly wage rates of a man over 21 years of age rose 25 per cent between 1955 and 1960, a period of low inflation. When overtime is taken into account, average weekly *earnings* increased by 34 per cent. Salaried incomes rose by a similar amount.

With the cost of consumer items such as cars and televisions falling markedly in real terms and, in some cases, even at point of sale prices, few would argue with Harold Macmillan's oft-cited remark that they had 'never had it so good'. Car ownership jumped a massive 250 per cent between 1951 and 1961; only 6 per cent of households possessed a television set in 1951 compared with 75 per cent a decade later. By the end of the decade Macmillan was glibly claiming that 'the luxuries of the rich have become the necessities of the poor'.[29] As in America, the increasing availability of short-term credit, or hire purchase (HP), encouraged immediate material gains. The pre-war HP debt of £100 million increased nearly ten-fold in the 1950s, and it has

been calculated that, in the late 1950s, over half the television sets in the country were bought on HP. The social pressure for quick material advancement was felt most heavily in the New Towns with their predominantly young and aspiring population, and a disproportionately high percentage of HP debts belonged to these residents. Although it was a long way from replicating America's 'high mass-consumption stage' — in 1956 only 8 per cent of homes had refrigerators, for example — Britain was becoming decidedly more consumerist with all that was implied in terms of social mobility and the social role of objects.

However, the fear was expressed by some that, not only was Britain importing America's economic system, but it was also being overtaken by American culture. Hollywood films, magazines such as *Life* and *Colliers*, comic books, rock'n'roll music and, following the commencement of commercial television in 1955, American television programmes including 'Dragnet' and 'I Love Lucy' were as loathed by intellectuals as they were loved by large sections of the population. Richard Hoggart, in *The Uses of Literacy* (1957), expressed the feelings of many British intellectuals about the Americanised mass media fare that seemed to be sweeping the country:

Most mass-entertainments . . . are full of a corrupt brightness, of improper appeals and moral evasions . . . they tend towards a view of the world in which progress is conceived as a seeking of material possessions . . . and freedom as the ground for endless irresponsible pleasure.[30]

He believed we were guilty of allowing 'cultural developments as dangerous in their own way as those we are shocked at in totalitarian societies'.[31] Raymond Williams in *Culture and Society* (1958) and *The Long Revolution* (1961) held similar views and in the latter book unambiguously stated his viewpoint:

We should be much clearer about these cultural questions if we saw them as a consequence of a basically capitalist organisation and I at least know no better reason for capitalism to be ended.[32]

In a decade dominated by the Conservative party — they held office from 1951 to 1964 — the Left was understandably dismissive of consumerism, of the 'affluent society brought in by the Tories . . . with its refrigerators, motor cars and washing machines, [which] had corrupted the British people into self-seeking vulgarity'.[33]

The reaction to American design by members of the art and design establishment was equally hostile. British Modernists, who generally held broadly Left-wing sympathies, rejected both consumerism as a system and its design manifestations. For Michael Farr, editor of *Design*, the type of design typified by American cars 'represents the noisy and self-assertive element in the American character'[34] — a

character which, quite clearly, did not aspire to European canons of 'good taste'. In the postscript to Farr's *Design in British Industry*, published in 1955, Nikolaus Pevsner wrote about three quintessentially American and, in his words, 'three equally objectionable modes of expression: streamlining, the mouth-organ radiator fronts of cars, and multi-coloured printed ties'.[35] Pevsner acknowledged that streamlining was 'emphatically representative of a certain quality of this machine age',[36] but dismissed its non-functional manifestations as an abuse of aesthetico-moral principles. His stinging objection to the post-war car was that 'it symbolises riches and power . . . grossly'. A dubious compliment followed: 'That sort of noisy show comes off in the United States where it is at least in accordance with its people.'[37] A similar objection is raised against multi-coloured ties, the 'perfect counterparts to the modern American's middle-class car'.[38] Pevsner concluded that 'overdoing is a common sin of the young and naive, and the Americans are both'.[39]

In the *Architectural Review*, a member of the Council of Industrial Design attacked Loewy's espousal of commerce and rejection of disinterested aesthetics:

The Modern Movement was an affair of the spirit and the intellect, while Loewy's approach to design has been more than once described as sensual. Its results have gained wider popularity almost inevitably, since the common man feels and only the uncommon man thinks.[40]

Another criticism of American design in general was directed, as Lippincott might have anticipated, on the material wastage that resulted from a system which encouraged obsolescence. America might have enjoyed a temporary abundance, but 'shortages are more noticeable than surpluses in the world economy'.[41] Thus American design was attacked politically, morally, aesthetically and ecologically.

It was against this unsupportive intellectual climate that a cultural theory of expendability was developed. It involved a handful of individuals who held in common an enthusiasm for the products of contemporary American culture, a dissatisfaction with the *sachlichkeit* aesthetics of Modernism, and a hatred of what they saw as the élitism of the British design establishment. The main proponents were Lawrence Alloway, an art and film critic; Reyner Banham, an architectural historian and design critic; John McHale, an artist, critic and 'futurologist'; the artist Richard Hamilton; and the architects Alison and Peter Smithson. All were involved to a greater or lesser extent with the 'Independent Group' (IG),[42] a loosely-knit discussion group which met for two seasons of sessions. The first was in 1952 when the programme centred around science and technology; the second in the winter of 1954–55

when the emphasis was on art, communications, and popular culture. Topics in the latter season included communications theory; contemporary fashion; pop music; consumer goods; American advertisements and architecture; and the symbolism of Detroit car styling. It was only when these topics — which were really pet subjects — were aired, that members of the group became aware that they shared a liking for 'mass-produced urban culture'. Alloway recalled that:

We felt none of the dislike of commercial culture standards amongst most intellectuals, but accepted it as fact, discussed it in detail, and consumed it enthusiastically. One result of our discussion was to take Pop culture out of the realm of 'escapism', 'sheer entertainment', 'relaxation' and to treat it with the seriousness of art. These interests put us in opposition both to the supporters of indigenous folk art and to the anti-American opinion in Britain.[43]

The intellectual isolation of these members of the IG, remembering the climate in Britain at the time, was not exaggerated by Alloway. What they were attempting to do at their meetings and in subsequent writings was to analyse (with varying degrees of criticality) the *visual* language of American images and products. One reason for this was to become what Alloway described as 'knowing consumers'[44] — consumers who were not blindly manipulated but were able to 'read' and understand the symbols of their culture. The judgements made by most intellectuals and design critics about American design were determined by their political opinions about America. But Alloway, Banham *et al.* believed it was necessary to try and separate the two and suspend their disbelief about the social and economic system which gave rise to this cultural output. In the late 1960s Banham recalled the problem they had had of reconciling their 'admiration for the immense competence, resourcefulness and creative power of American commercial design with the equally unavoidable disgust at the system that was producing it'.[45] This was because 'we had this American leaning and yet', Banham claimed, 'most of us are in some way Left-orientated, even protest-orientated'.[46]

Their 'American leaning' meant that they found it easier than most to suspend their disbelief about the American socio-economic system and concentrate solely on the design manifestations. This positive (and at times celebratory) acceptance had three groundings. First was a disenchantment with contemporary British culture, with the 'Moore-ish yokelry of British sculpture or the affected Piperish gloom of British painting',[47] and with the 'Montgomery and soda-water' attitude of the British design establishment.[48] Second was the belief that, contrary to what European cultural critics might think, it was so-called 'mass culture' which offered greater individual freedom and choice:

It is not the hand-crafted culture which offers a wide range of choice of goods and services to everybody . . . but the industrialised one . . . As the market gets bigger consumer choice increases: shopping in London is more diverse than in Rome; shopping in New York more diverse than in London. General Motors mass-produce cars according to individual selections of extras and colours.[49]

This argument ignored criticisms about the illusory freedom of capitalist choice and even the danger of monopolistic power.

Third was the Americans' optimistic attitude to technology — their 'technological progressivism'. Often this argument was used to reinforce the second grounding — namely that technological advances led to greater opportunities and choices — but underlying that was a belief that an optimism for and commitment to technology was a good thing, despite the concern that it might lead to abuses and excesses. Technology implied *change*, and so a positive attitude implied a dynamic, living and progressive society rather than one which was stagnating with an outmoded culture and set of values. Technology was the provider of material dreams. On a personal level it would bring about increasing affluence, labour-saving and pleasure-giving gadgets and prolonged leisure with which to enjoy them. On a public level it would ensure scientific discoveries and society's advancement to the depths of the seabeds and the heights of the stars. Banham wrote of the 'growing possibility of quitting our island earth and letting down roots elsewhere';[50] and one of the optimists' heroes, American architect and inventor Buckminster Fuller, predicted that

within a few years we will be able to go in the morning to any part of the earth by public conveyance, do a day's work, and reach home again in the evening . . . We will be realistically and legally in a one-town world for the first time in history.[51]

'The future of the individual', John McHale confidently proclaimed, 'is based . . . on whatever expectation of the future he acquires.'[52]

Similar sentiments could also, interestingly, be found in the writings of the American industrial design pundits. In *Design for Business*, Lippincott declared in the opening sentence: 'The twentieth century is the first period of recorded history in which huge masses of the population have come to accept change as natural and desirable.'[53] Furthermore, in the second half of the twentieth century 'we have become so used to change that as a nation we take it for granted'. Lippincott's concern, however, was with business and selling and he continued:

The American consumer *expects* new and better products every year. He has become accustomed to the yearly automobile show — to national advertising announcing new models. His acceptance of change toward better living is indeed the American's greatest asset. It is the

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prime mover of our national wealth. It should be realised that change has *momentum*, and it has *mass*. It takes a long time to get mass acceptance of change in motion, but once in motion, as it most assuredly is now, it will keep rolling for the forseeable future.[54] [author's italics]

Members of the Independent Group chose to concentrate on the advantages of consumerism *to the consumer* rather than the manufacturer, and on the benefits of a cultural *attitude* of change, as well as change — and hence obsolescence — as an integral condition of technology.

This last point was taken up in 1955 by Reyner Banham who attacked the 'pioneering masters' of the Modern Movement for their attitude to technology which had ignored the main condition of technology — continual change — in favour of a 'selective and classicizing' approach which 'came nowhere near an acceptance of machines on their own terms or for their own sakes'.[55] This was a theme that Banham fully developed in his 1960 *Theory and Design in the First Machine Age* and it led him to re-evaluate and upgrade the attitude to technology of the Futurists who, rather than attempting to impose an aesthetic *on* the products of industry, attempted to invent a new aesthetic based on the condition of technology and the 'machine age'. Antonio Sant'Elia and F. T. Marinetti had even gone so far, in the 1914 'Manifesto of Futurist Architecture', as to promise that the 'fundamental characteristics of Futurist architecture will be impermanence and transience. THINGS WILL ENDURE LESS THAN US.'[56] [authors' capitals]. Banham also praised the committed attitude to technology of Buckminster Fuller whose inventive mind came as close as anyone's to creating an architecture *of* technology 'whose character Fuller defined, and rightly, as an ". . . unhaltable trend to constantly accelerating change" '.[57]

The post-war heir to this legacy was, in Banham's view, the American car, that 'breathless, but unverabalisable consequence to the live culture of the Technological Century'.[58] Importantly, instead of trying to attain a timeless and universal appearance, the stylists employed the 'extraordinary continuum of emotional-engineering-by-public consent which enables the automobile industry to create vehicles of palpably fulfilled desire',[59] and whose styling features expressed a strong commitment to contemporary 'jet age' advanced technology. The annual model change was a symptom of a society which accepted change and exhibited a positive attitude to technology — viz. an acceptance of obsolescence.

Banham then tried to establish relevant aesthetic criteria for the 'live culture of the Technological Century'. He complained that the majority of cultural commentators were continuing to use outmoded and élitist criteria which belonged to a bygone age:

we are still making do with Plato because in aesthetics, as in most other things, we still have no formulated intel-

lectual attitudes for living in a throwaway economy. We eagerly consume noisy ephemeridae, here with a bang today, gone without a whimper tomorrow — movies, beach-wear, pulp magazines, this morning's headlines and tomorrow's TV programmes — yet we insist on aesthetic and moral standards hitched to permanency, durability and perennity.[60]

This pinpointed the main stumbling block for conventional critics: the issue of expendability. Banham was resolute in his belief that 'The addition of the word *expendable* to the vocabulary of criticism was essential before . . . [popular culture] could be faced honestly, since this is the first quality of an object to be consumed'.[61] Richard Hamilton had come to a similar conclusion. In a letter to the Smithsons in 1957 he defined the characteristics of American industrialised culture as

Popular (designed for a mass audience); Transient (short-term solution); Expendable (easily forgotten); Low Cost; Mass Produced; Young (aimed at youth); Witty; Sexy; Gimmicky; Glamorous; [and] Big Business.[62]

What now began to happen was that analysis turned to prescription and creation.

One of the first manifestations of the new thinking — and subsequently one of the best known — was the *This Is Tomorrow* exhibition held at the Whitechapel Art Gallery in 1956. Twelve groups of three members — notionally a painter, sculptor and architect — were formed and each presented an environmental exhibit relating to the title and theme of the exhibition. The environment constructed by Richard Hamilton and John McHale (the third member, architect John Voelcker, was little involved) combined perceptual ambiguity — black and white undulating patterns and Duchamp-influenced 'rotorelief' discs — with imagery from contemporary mass media and popular culture which included a life-size photograph of Marilyn Monroe; a cardboard cut-out of Robby, the robot from the science fiction film *The Forbidden Planet*; and a juke box which pounded out the top twenty hits of the day (Fig. 3). 'Tomorrow' was expressed in terms of sensory bombardment, appealing technology and the 'expendable ikon'.[63] Hamilton's poster for his group's display, *Just what is it that makes today's home so different, so appealing?* illustrated what he felt were the essential ingredients of contemporary American popular culture. His method was to draw up a list of categories — man; woman; food; history; newspapers; cinemas; domestic appliances; cars; space; comics; television; and information — and then find images typical of each.

Following on from *Just what is it . . .*, Hamilton produced a number of paintings which made use of American product styling, advertising imagery and presentation techniques. He looked upon these works not so much as a way of 'finding art forms but [as] an examination of values'[64] — a notion of art as

Fig. 3. Richard Hamilton, John McHale and John Voelcker's exhibit in *This is Tomorrow*, 1956.

visual research. *Hommage à Chrysler corp* (1957–58) reveals a debt to the IG in general and Banham's investigations into car styling in particular. *Hers is a lush situation* (1957–58) and *$he* (1958) (Fig. 4) continued this approach. A full explanation of each painting was usually published in a sympathetic journal such as *Architectural Design*. Hamilton was aiming to play the role of Alloway's 'knowing consumer', a role which accorded with Hamilton's own view that 'an ideal culture, in my terms, is one in which awareness of its condition is universal.'[65] This was an approach Hamilton returned to throughout the 1960s: the *Towards a definitive statement on the coming trends in menswear and accessories* series, painted in 1962 and 1963; *Interior II* of 1964; *Still Life*, 1965; and *Fashion-plate* of 1969–70 all reconstruct or re-present presentation techniques and images from the mass media and/or products from consumerist culture to help the viewer recognise and understand the language of media.

In architecture and design, Alison and Peter Smithson's interest in America, advertising, advanced technology and expendability led them to investigate the idea of 'architecture as consumer product'. In the second season of IG meetings, the Smithsons had given a lecture on the gulf between consumer ideals and conventional architectural solutions in which they claimed

Mass production advertising is establishing our whole pattern of life — principles, morals, aims, aspirations and standard of living. We must somehow get the measure of this intervention if we are to match its powerful and exciting impulses with our own.[66]

Their 'Homes of the Future', commissioned for the 1956 *Ideal Home* exhibition, grew from this thinking and was an ingenious mixture of building industrialisation and Detroit-influenced car styling. The components that comprised the 'House' were mass produced but, as with car production, each component was used only once in each unit (the house). This solved the problem of industrialisation leading to standardisation and repetition. With the Smithson's approach, obsolescence was an integral part of

Fig. 4. Richard Hamilton, *$he*, 1958–61, oil, cellulose, collage on panel, Tate Gallery.

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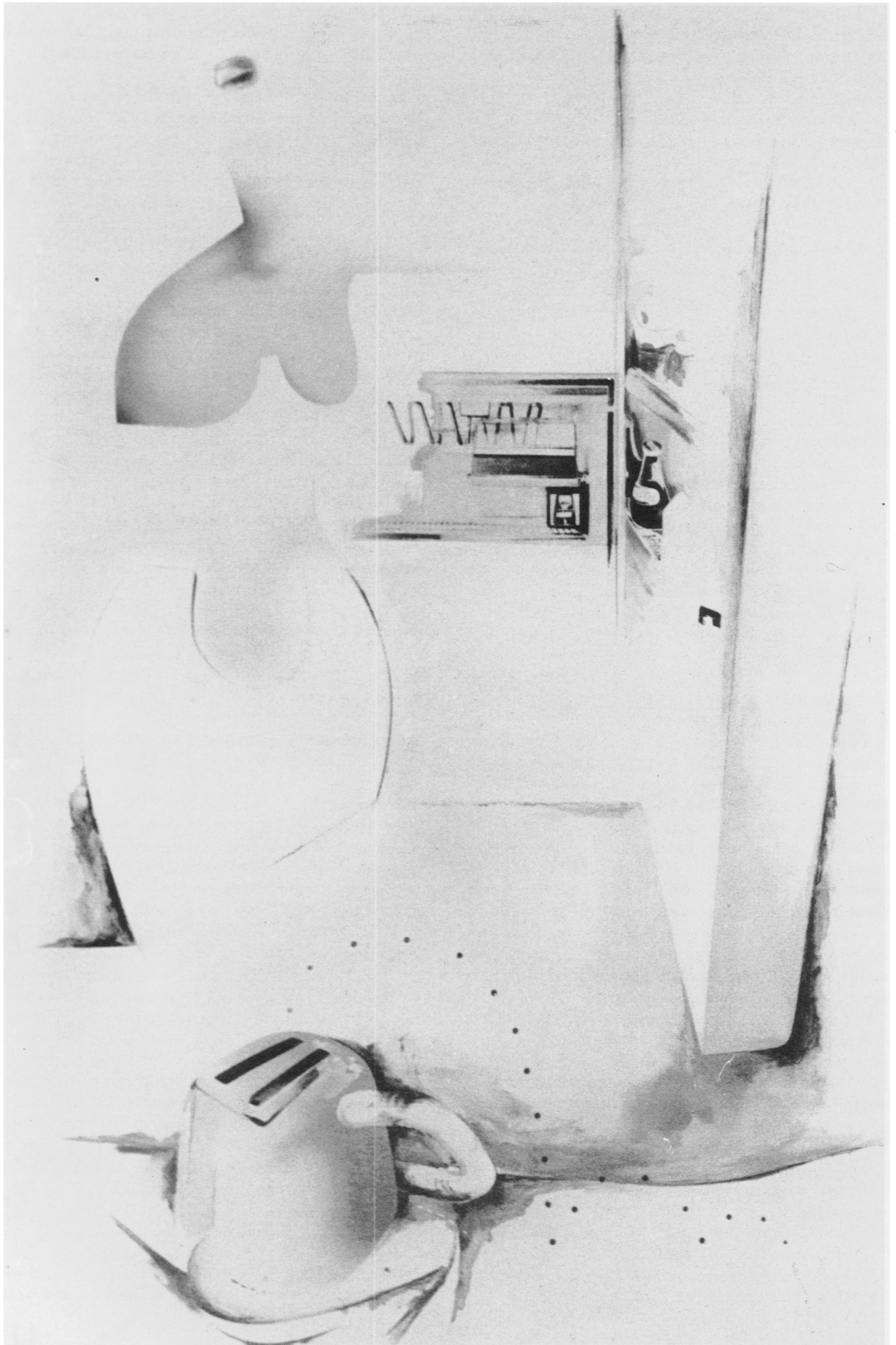
the design concept which promoted the idea of an annual model change. The styling of the 'House' was designed with the consumer in mind, and features were included — for example a chrome strip on the exterior which recalled car styling — to make the 'product' fashionable and desirable. Within the building was a range of up-to-date services, technical equipment, and space-age consumerist gadgets including an 'electro-static dust collector' and a service trolley which housed television and radio. The Smithsons continued their research in the late 1950s into architecture, technology and expendability with two 'Appliance Houses'. Both would be mass produced, capable of dense grouping and 'contain a glamour factor'[67] to ensure their appeal to consumers. In 1959 the Smithsons thought it a real possibility that 'a future architecture will be expendable'.[68]

In the 1960s, members of the Independent Group went their separate ways. Reyner Banham left the Architectural Review, where he had worked since 1952, and entered academia at University College, London in 1964. Following Theory and Design in the First Machine Age, Banham published three more books on architectural history during the decade. He also contributed a regular column to the New Statesman (between 1958 and 1965) and New Society (from 1965) in which he wrote — as we shall see — about aspects of popular culture, technology and expendability. John McHale went to America, eventually becoming Director of the Center for Integrative Studies at the State University of New York. Throughout the 1960s and until his death in 1978, McHale remained passionately committed to experimental science and advanced technology. He wrote widely about 'the future', especially about ' "future orientation" . . . as an intellectual and social attitude',[69] and continued to expound the beneficial effects of the new technologies on the patterns of our lives and modes of thought. Lawrence Alloway also went to America where he took up the post of curator of the Guggenheim Museum in New York. Alloway diverted his energies away from mass urban culture and technology towards fine art causes. The Smithsons went so far as to renounce their interest in popular culture and expendability in favour of more conventional architectural concerns.

The cultural ideas about expendability advanced by certain members of the Independent Group remained in good currency in the 1960s and were taken up enthusiastically by a younger generation of practitioners and theoreticians. Chief amongst the followers was the architectural group Archigram. At the beginning of the decade all six members of the group — most of whom were born in the mid to late 1930s — were recent graduates of architectural schools and felt great dissatisfaction at the state of British architecture and current level of discussion. The first two issues of their magazine, Archigram, were published in 1961 and 1962. Both included a disparate collection of projects by members of the

group, friends and students but the authors were in no doubt of their underlying intention: 'We want to drag into building some of the poetry of countdown [and] orbital helmets'[70] — an architecture that was as emotionally and technologically connected to the 'space age' as the Smithsons' consumerist projects belonged to the 'jet age' of Detroit car styling.

In 1963 the third issue of Archigram was published, and it resembled a manifesto by a coherent group. The theme of the issue was emblazoned across the cover: 'Expendability: towards throwaway architecture'. All the material in the issue was relevant to this theme, ranging from consumer products to old and new architecture, including projects by Buckminster Fuller. Archigram's own work comprised projects for complex buildings or megastructures which had long-term frameworks and short-term and expendable shop- or living-units.

In the editorial of Archigram 3, group member Peter Cook listed the increasing number of expendabilia that were now socially acceptable — paper tissues, polythene wrappers, ballpoints and others — and commented that at 'every level of society and with every level of commodity, the unchanging scene is being replaced by an increase in change of our user-habits and thereby, eventually, our user-habitats'.[71] Cook was delighted by this change, interpreting it as the 'product of a sophisticated consumer society, rather than a stagnant (and, in the end, declining) society'. Cultural critics and Modernists would doubtless have taken issue with Cook and read 'sophisticated' as a euphemism for 'exploitative'. Cook, however, believed that expendability should be enthusiastically embraced and was disappointed by what he saw as the public's inconsistency:

Why is there an indefinable resistance to planned obsolescence for a kitchen, which in twelve years will be highly inefficient (by the standards of the day) and in twenty years will be intolerable, yet there are no qualms about four years obsolescence for cars.[72]

The fashion industry provided the model for expendability: 'After all', Cook continued, 'my wife wears clothes which will be an embarrassment in two years'. The price of a kitchen was an obvious reason for not accepting more rapid obsolescence, but if the public's attitude changed — and that this could happen with larger scale products was shown by the attitude to car obsolescence — the structure of the market would shift and prices decrease. Cook, like members of the Independent Group, futurologists and American industrial design pundits, implored consumers to think again:

Our collective mental blockage occurs between the land of the small-scale consumer product, and the objects which make up our environment. Perhaps it will not be until such things as housing, amenity-place and work-

place become recognised as consumer products that can be bought 'off the peg' — with all that this implies in terms of expendability (foremost), industrialisation, up-to-dateness, consumer choice, and basic product-design — that we can begin to make an environment that is really part of a developing human culture.[73]

Archigram's message was clear: expendable technology should be a joyous fact of contemporary life, and everything should be regarded as a consumer product: 'the home, the whole city, and the frozen pea pack are all the same'.[74] A collage illustrated the point (Fig. 5).

Several projects by Archigram developed these ideas. Warren Chalk's 'Capsule Home' of 1964 and David Greene's 'Living Pod' of 1965 were influenced by the imagery and ergonomic exactitude of the space capsule, and were to be mass produced like a consumer commodity. They were similar in intention to the Smithsons' 'House of the Future' and 'Appliance House' schemes. The group's 'Plug-in City', also of 1964, was an enormous megastructure the size of a city. A long-term (40-year) framework contained essential services into which were 'plugged' shorter-term units catering for a variety of needs and 'planned for obsolescence' (Fig. 6).[75] Archigram portrayed 'Plug-in City' as a 'visually wild, rich mess';[76] visual sources included oil refineries, space and underwater hardware, launching towers, Second World War seaforts and, linking the group even more directly with the IG, science fiction imagery. Cook was indeed aware of the historical precursors of Archigram's attitudes and admitted that 'Plug-in City' could not have existed without, inter alia, the Smithsons. He emphasised both continuity and development: Archigram's ideas expressed 'a maturity stemming out of the '50s'.[77]

In 1964 the fourth issue of Archigram was published. Its full title was Amazing Archigram 4 Zoom issue and it was set out like a comic with pages of collaged science fiction imagery. The consistent theme was the relationship of science fiction to architectural fact and contemporary practice. Science fiction imagery was part of a 'search for ways out from the stagnation of the architectural scene';[78] it also put architecture in touch with live technology. In 1914 the Futurists had worshipped cars, railway and electricity stations, and dams. In the mid 1960s Archigram looked towards 'the capsule, the rocket, the bathyscope, the Zidpark [and] the handy-pak'[79] for an up-to-date image of technology. A few months later Reyner Banham was moved to praise Archigram for providing 'the first effective images of the architecture of technology since Buckminster Fuller's geodesic domes first captivated the world fifteen years ago'.[80]

A shift in Archigram's thinking about expendability began to occur in 1965. The notion of 'architecture as consumer product' placed an undoubted emphasis on architectural hardware — the thing to be consumed, used or lived in. What

began to matter more to Archigram was experience facilitated by the environment — the software. One no longer threw away the hardware, as one would an obsolete product, but changed the environment to suit one's current needs or desires. Their 'Plug'n'Clip' exhibit, presented in late 1965, typified this trend. Hardware was still in evidence but its significance lay in what it could do. 'We can', claimed Cook,

reproduce the images of yesterday by photography or film, and the slide show has taken the place of the family album. It is only an extension of all these to conceive of a living room that could stimulate by colour, sound, or projected images, any atmosphere one required simply by throwing a switch.[81]

A year or so later in their 'Control and Choice' project, Archigram pursued this idea to an even more extreme conclusion:

The determination of your environment need no longer be left in the hands of the designer . . . it can be turned over to you yourself. You turn switches and choose the conditions to sustain you at that point in time. The 'building' is reduced to the role of carcass — or less.[82]

The concern now was with change, but it was change through the participation of the inhabitant and the flexibility and responsiveness of the environment. Archigram had moved beyond the idea of expendability as it would have been understood by consumerist designers and its cultural protagonists.

Archigram's thinking had been influenced by the 'architecture as service' approach which had characterised the work of Cedric Price since the early 1960s. Price consistently emphasised function over form, and his projects often comprised written notes with only minimal visualisations. The appearance of a building did not greatly interest Price: the provision of flexibility and functional expendability were his main preoccupations. The scheme which brought Price to prominence amongst the younger generation of architects was his 'Fun Palace' of the early to mid 1960s. The 'Fun Palace' was a new approach to creative leisure: Price believed that 'leisure facilities must be used by society as an active social-sensing tool, not merely a static predictable service'.[83] This meant that the 'Fun Palace' had to be adaptable to a range of activities as diverse as experimental dance and meditation. None of the activities was to be permanent, which meant that the spaces had to be fully flexible. Price envisioned a giant 855 × 375 feet space frame. Supporting towers would contain the necessary services, but other parts of the building — ramps, walkways, escalators, walls, floors, ceilings and auditoria — were impermanent, movable and interchangeable. To ensure environmental flexibility, no part of the fabric was designed to last for more than ten years, while specific environemnts would last only for a few days or even a few hours.

IT'S
ALL
THE
SAME

THESE

Puffed Wheat

DAZ

Signal

Wonderloaf

TISSUES

ALL THESE....
(1)ABSTRACTA SYSTEM DOMES, (2)..
DYMAXION CAR,(3)LCC TEMPORARY
HOUSE,(4)PLASTIC TELEPHONE EXCH.,
(5)WICHITA HOUSE,(6)PANEL FOR LAB.
BUILDING IN PLASTIC FOR THE ANT-
ARCTIC SURVEY; AND THE DISPOSABLE
PACKS OF FOOD, RAZOR BLADES, ETC.;
ALL SHARE THE DISTINCTION OF a,
BEING SERIOUS ATTEMPTS AT DIRECT
DESIGN FOR OBVIOUSLY LIMITED
LIFE-SPAN OBJECTS; AND b, HAVING
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MUCH GREATER BETWEEN THE
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20 YEAR LIFE-SPAN HOUSE
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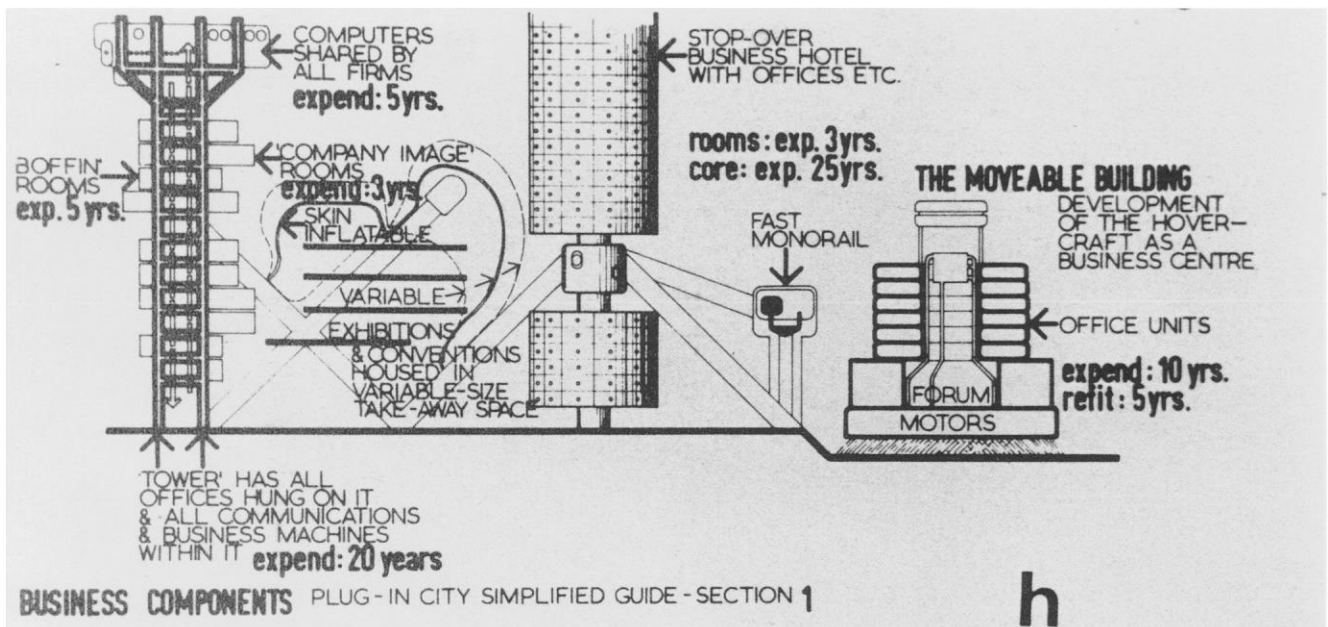This is the significant
sameness of all these.

Fig. 6. Archigram, *Plug-in City*, 1964. Lifespan of Business Components.

Whereas the Archigram architects were, until their later work, undoubtedly committed to the consumerist notion of expendability with its connotations of 'style obsolescence', Price saw expendability only in terms of a constantly changing environment that was responding to its users' requirements. A similar motivation served his 'Pop-up Parliament' scheme of 1965, which entailed the redesign of the Houses of Parliament. The aims were to give members 'as efficient a workshop as possible; and to make the building flexible for later needs and decisions'.[84] Price also hoped to demystify the parliamentary process and, in so doing, 'arouse people's serious involvement'. The solution involved demolishing the old palaces of Westminster, a solution Price realised would be unpopular because, ultimately, 'we associate them with order and permanence'. Price was acknowledging that buildings have an associative or symbolic dimension and, he argued, 'permanence isn't the thing to symbolise in an era of throwaway Pentel pens and planned obsolescence'.[85] Change, presumably, was.

The era that Price referred to was well underway in the 1960s, for Britain had entered its own 'high mass-consumption stage'. The manifestations may not have been as excessive or flamboyant as those in America a decade earlier, and overt materialism was less evident, but a *relative* increase in consumerism was there for all to see. Retail prices rose 63 per cent between 1955 and 1969, but salaries increased by 127 per cent in the same period, and average weekly earnings by 130 per cent. Many goods began to reach saturation point. Eighty-three per cent of households possessed a television set by 1963 and, although only a third of houses owned a refrigerator in the same year, two-thirds owned one by the end of the decade. Car ownership more than doubled between 1960 and 1970. Competition between manufacturers became keener, and styling began more obviously to reflect consumerist values and aspirations.

This was most noticeable in car design where manufacturers in Britain imported from America the concept of 'product planning'. Up to that time decisions about producing a new car may have emanated from the Managing Director or, in the view of one writer, according to the convictions or taste of the individual who owned the plant.[86] Increasing competition, market economies and the greater consciousness of status encouraged by the consumer society led manufacturers to produce a range of cars carefully graded in economic and social terms. Ford was a pioneer of professional product planning in Britain and the 'Cortina' was the first fruit of the new approach (Fig. 7). Introduced in 1962, the 'Cortina' has been described as a 'modern transport package carefully considered to meet the consumer's material and metaphysical needs for the early 1960s'.[87] It belongs to the period when holidays to the continent by jet were becoming considerably more common for the prosperous middle classes — it was, in fact, named after a fashionable resort, Cortina d'Ampezzo, the north Italian hill town that had hosted the 1960 Winter Olympics. The 'Cortina' was marketed as a stylish and sophisticated car for the discriminating consumer who cared about appearance as much as performance and

Fig. 5. Archigram, *Expendability* collage, 1963.

Fig. 7. The Ford *Cortina* from a publicity brochure, c.1963.

reliability. It appealed to the status-conscious, socially mobile and in its first year of production 300,000 were sold. Consumers were provided with a greater range of engine sizes and colour combinations than was normal in order to fine-grade status differentiation.

The redesign period and length of ownership of new cars in Britain in the 1960s coincided at approximately four years. The 'Cortina' Mark II was introduced in 1966, and the Mark III in 1970. The American consumerist system of the periodic model change and 'style obsolescence' allied to attention to the niceties of social status had been imported into Britain. The latter's peak in the family car class in the 1960s was reached with the launch of the Ford 'Capri' in 1969. The 'Capri' offered the public choices of normal and high performance engine sizes and engine tune, dashboard instrumentation, and interior trim. A set of small badges just behind the front wheel opening detailed the chosen specifications and thus communicated the owner's status to car *aficionados*.

Consumerism had its impact on product design which sought to look modern and up-to-date. Kenneth Grange's 'Kitchen Chef' for Kenwood, for example, exhibited the kind of solid simplicity and rigorous *gut form* which had previously been lacking in fussy and finnicky British design (Fig. 8). More than ever, 'white goods' — washing machines and refrigerators — looked convincingly efficient, functional and business-like. Many manufacturers

did not practise a policy of regular redesign or restyling for individual products — Grange's 'Kitchen Chef', for example, was not an exception in retaining the same appearance until 1975. The British were neither as affluent as Americans, nor, for the majority, could the cultural habit of thrift be quickly jettisoned.

But attitudes were changing, the result of prosperity, consumerism and social mobility. The ethos of abundance and desire was most seductively portrayed in the colour supplements or 'colour-supps'. The first, published by the *Sunday Times*, appeared in 1962; the *Sunday Telegraph* supplement followed in 1964, and the *Observer Magazine* in 1965. The tone and approach of the 'coloursupps' to product design and fashion were apparent in the first 'Design for Living' feature, which appeared in the *Sunday Times Colour Supplement* soon after the magazine's launch:

Poor design has become a target for anyone with a brick to throw: good design is treated as a sort of sacred cow. The attitude to function is racing to the same level of absurdity; testing is turning into an obsession. There are times when one longs to buy something plumb ugly and utterly unfunctional.[88]

This was an attack on the sort of aesthetico-moral principles and refined taste promoted by the Council of Industrial Design, *and* the rational and objective product design reported in magazines such as
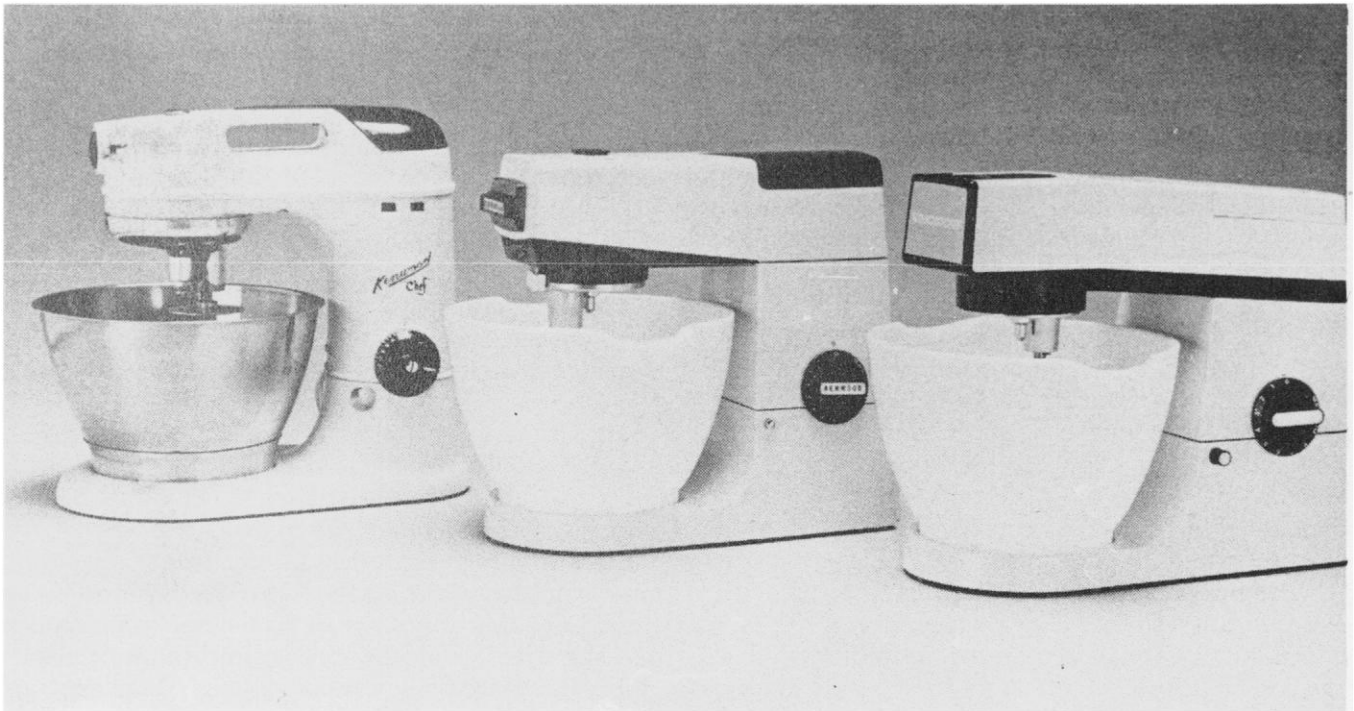
18

Fig. 8. Kenwood *Chef* designs: left to right — old model produced until 1960; Kenneth Grange's redesign, introduced in 1961 and updated version by Grange, 1975.

Which? In their place the 'coloursupps' encouraged an emotional and subjective approach to design based on novelty, desirability and fashionable taste. It was an approach successfully adopted by Terence Conran who described his first 'Habitat' as a 'shop for switched-on people selling not only our own furniture and textiles but other people's too. It's functional and beautiful'.[89] 'Habitat' exploited the aspirations of young professional, upwardly-mobile buyers for moderately cheap, fashionable furniture and design displayed in a lively manner. A second branch opened in 1966 and by the end of the decade there were five branches and a flourishing mail order service.

The mood amongst the young and socially mobile in the early to mid 1960s was for change. In 1963, Harold Wilson, who had recently become his party's leader, outlined his vision of a progressive and classless Britain that would be 'forged in the white heat of the scientific revolution',[90] and in 1964 Labour was elected to office where they remained for the rest of the decade. Until the political mood became *plus ça change* after 1966, the decade was a time of optimism when the country seemed to be turning its back on decades — it not centuries — of inequality and class warfare and embarking on a new age of classlessness and progress through technology.

'Coloursupp' writers capitalised on the new mood when reporting design. Writing about contemporary furniture in the *Sunday Times Colour Supplement* in 1964, Priscilla Chapman popularised the idea that

technological change is going to move so fast that people won't tolerate machines or furniture or even rooms which are more than a few years old . . . Responsible design will be throwaway design . . . [people] throw away their paper bags, their television sets and their cars. The public just don't realise how close they are to throwing away their furniture too . . .[91]

No longer, Chapman argued, should obsolescence be thought of as irresponsible or exploitative. Indeed, in a slightly later 'coloursupp' feature, Chapman gleefully predicted that '*planned* obsolescence will soon be out of date as a dirty word, simply because *genuine* obsolescence will make it unnecessary'[92] [original author's italics]. In other words, change — and hence obsolescence — was no longer under the control of scheming manufacturers, but was an inevitable symptom of an advanced technological society. This 'technological determinist' view echoed Archigram and the 'progressivist' faction of the IG.

For one market group for a short time between 1963 and 1967, 'genuine obsolescence' did seem to become one of the main criteria in design, the corollary of massive initial impact. That group was the urban, prosperous young. Youth became an important consumer market group in the 1960s for two reasons. First and foremost was the economic factor: full employment and the increased affluence of their parents meant that youth had disposable income in enticing quantities and so became a

much sought-after consumer target group as manufacturers attempted to fulfil youth's perceived needs and desires. Second was its demographic increase. The post-war 'baby boom' resulted in almost a 20 per cent increase in the number of 15 to 19 year-olds between 1956 and 1963.

The consumerist society had given rise to changed attitudes and values amongst the young. The 'children of the Age of Mass Communication'[93] were the first generation who were born *after* the War and who had little memory of post-war austerity. They had the money to be extravagant and were encouraged by the consumerist society so to be. Pop music was youth's rallying call which could become its battle cry when required during the 'war of the generations'. It was a tool of rebellion and a means of expressing identity. Innumerable records were released, some of which became hits, but most of which sank into obscurity. Pop music aspired to the condition of fashion in which change was the only constant. The young demanded, according to George Melly, 'music as transitory as a packet of cigarettes and expendable as a paper cup'.[94] Youth wanted music that was for *now*.

In the 'High Pop' years between 1963 and 1966,[95] British Pop music — through groups such as the Beatles, the Rolling Stones and the Who — asserted itself over its American counterpart. By 1966 Britain was being hailed as the world leader in Pop culture. *Time* proclaimed 'In a decade dominated by youth, London has burst into bloom. It swings: it is the scene'. Britain was also hailed as leading the world in Pop fashion. In early 1964 the trade journal *The Tailor and Cutter* remarked that 'for the first time ever, many fashion influences are emanating from the under-25 group' and later in the year the International fashion council acknowledged the youth market as a 'style of fashion'.

Expendability was at the core of fashion design. The young were urged by one fashion journalist to 'make the break — throw out the old — discard the dreary. There's so much fun around fashion and you'll miss out if you don't'. It was not any one style or particular trend that was significant, but the constantly changing kaleidoscopic appearance and disappearance of styles and trends: mini, midi, or maxi; skinny-knit; loose-fitting; with sown-on additions or cut-away pieces; PVC; space-race; floral; paisley; purple and orange; Pre-Raphaelite; military uniform; Pop art; union jack; clashing primary colours; Art Nouveau; Victoriana — and so on. Style obsolescence was underpinned by physical obsolescence. The 'Biba' shop boasted a 'knock-down, throw-away-and-buy-another philosophy'. The rate of change accelerated as 'Biba' tried to introduce new designs once or twice a week. Pop fashion fulfilled Richard Hamilton's definition of Americanised popular culture. These *young* clothes were often *sexy*, frequently *gimmicky*, occasionally *witty*, but invariably *popular*. Because *mass produced*, they could be *low cost* and this, with their up-to-the-minuteness,

made them physically and stylistically *expendable*. The fashion trade was booming and had become *Big Business*.

The height of Pop expendability was reached with paper clothing. Although rare, some paper clothes became available in early 1967. A firm aptly named 'Dispo' intended to bring out a new paper dress design every month. Their colourful 'fluorescent lime and pink' dresses were priced around £1.25 compared with £6 for a cotton dress. Zandra Rhodes designed a printed paper wedding dress for £1.20, and for £3.00 it was possible to buy a silver paper suit — 'the ultimate space age adventure' — by Harry Lans at 'Biba'. The most stylistically expendable dresses would have been 'Pop Poster' dresses, which were to be manufactured by a company named 'Poster Dresses' (Fig. 9). Each new dress was to have a bold photograph image of this week's pin-up or eye-catching image on the front. After a few days or even a couple of outings — whichever came sooner — the dress would be thrown into the wastepaper bin, the exhausted symbol of High Pop expendability.

One pundit announced that he eagerly awaited the day when 'cutlery and furniture design (to name but two) swing like the Supremes'.[96] It indeed seemed inevitable that the young and fashion-conscious who were attracted by paper clothes and who spent their evenings in discos would seek, in the words of one critic,

furniture in up-to-the-minute colours, pop shapes and pop, op, or wild floral patterns: stuff which is cheap enough to repaint with a five shilling [25p] aerosol spray or throw away when a new style, pattern, or colour appears.[97]

Painted *wooden* furniture could be disposable in two ways: old furniture could be picked up cheaply and so readily discarded; and the patterns could be regularly painted over — 'Change the paint, change the fashion' as one writer put it. Disposable *paper* furniture created by Bernard Holdaway, Peter Murdoch, David Bartlett and others[98] sold for between £1.50 and £2.00 (Fig. 10). Holdaway defined the aim of his 'Tomotom' range of paper furniture as '. . . exciting designs at the lowest possible price: in fact, the idea is that the furniture should be cheap enough to be expendable'.[99]

Excitement, action, fun, constant change and disposability were presented as the hallmarks of the Pop lifestyle. The mood affected a range of people and professions connected with Pop. The photographer Bryan Duffy, for example, thought 'it would be marvellous to make your pictures out of date after six weeks . . . because the quicker you get them out of date, the more on the ball you are. I hate this thing "clasical" . . .'.[100] Similar sentiments lay behind John Bannenberg's design for Mary Quant's dining room which was described as
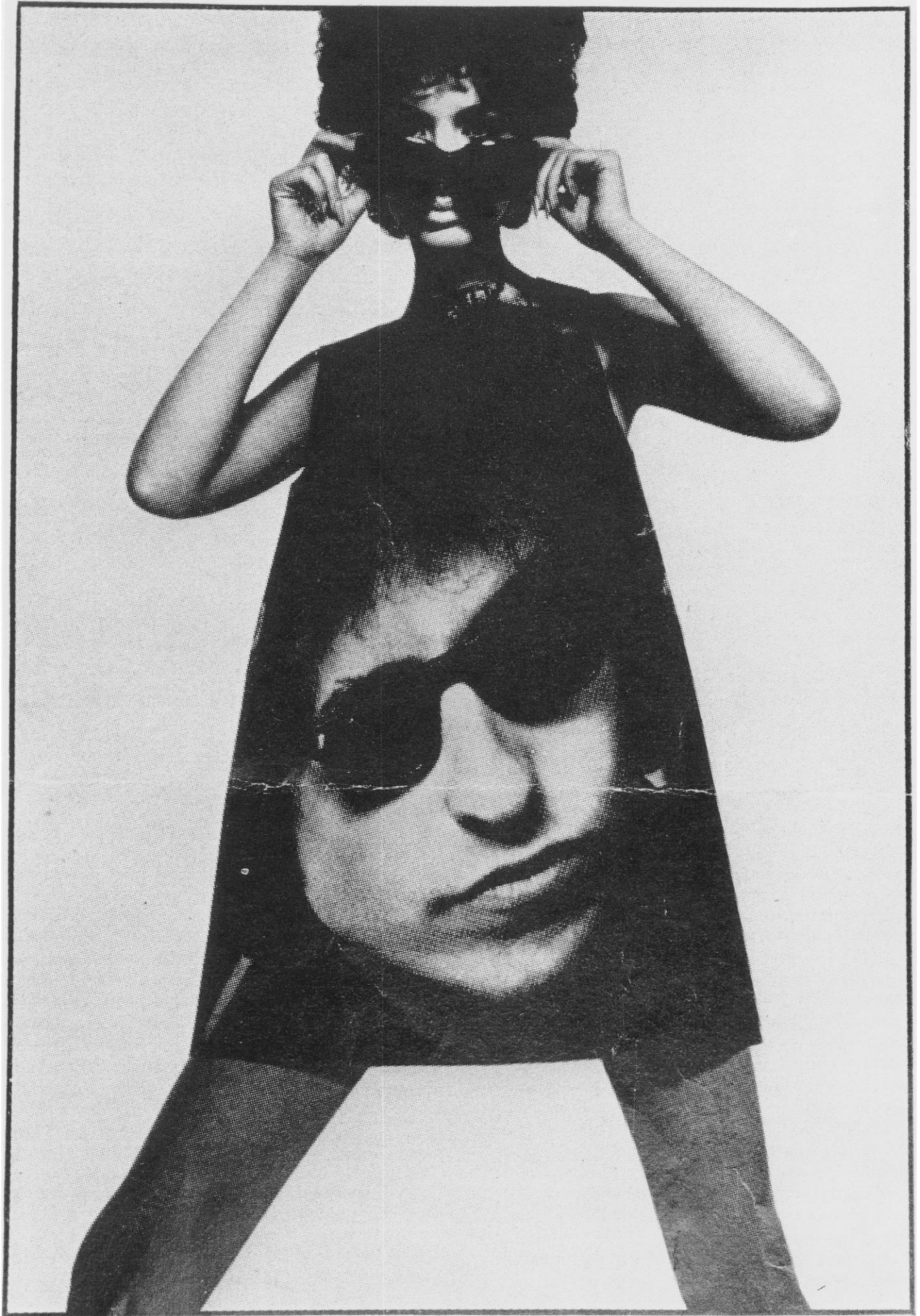
Fig. 9. Poster Dresses, *Pop Poster Dress*, 1967.

Fig. 10. Bernard Holdaway, *Tomotom* furniture range, 1966.

an exercise in pure fashion — in today, expendable tomorrow and no tears shed. There is little in the room which is intended to hold its interest for a much longer period of time than the swinging dresses worn around the table. Neither associations with the past, nor an inheritance for the future have much place here.[101]

What an older generation saw as the wilful destruction of traditional standards and conventions — whether in interior design, furniture or fashion — youth saw as a liberation. The conservatively-inclined *Tailor and Cutter* may have bemoaned 'the new concentration on visual impact at the *complete expense* of quality (in its old connotation of durabiilty)',[102] but youth welcomed Pop's 'enjoy-it-today-sling-it-tomorrow philosophy ... uninterested in quality and workmanship as long as the design is witty and new'.[103] The 'meaning' of Pop — in which expendability was integral — was determined by your outlook on life.

Assessing the significance of Pop fashions from youth's point of view, Drusilla Beyfus wrote:

the last thing these customers want is a good thing to last. They need to be able to afford a new fashion, often. For a

lot of these youngsters, the fact of snapping up high-heeled navy blue suede boots one week and buying a two-toned shirt the next is the finest proof they know that they have a lot of living to do.[104]

Beyfus had made a perceptive point that applied to Pop in general. Change and expendability were seen by the Pop young not as means but as *ends* in themselves: as a 'natural and desirable' condition (to recall J. Gordon Lippincott's words); as an affirmation of life. The designer's role was to provide constant novelty to ensure continual change and expendability. In Mary Quant's opinion,

All a designer can do is to anticipate a mood before people realise that they are bored with what they have already got. It is simply a question of who gets bored first. Fortunately I am apt to get bored pretty quickly. Perhaps this is the essence of designing.[105]

These were sentiments remarkably similar to those defined by Harley J. Earl in 1955:

Discontent, dissatisfaction, and restlessness ... seem to be absolutely necessary ... for any person engaged in the

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field of automobile design. A car stylist must be discontent with past achievements, dissatisfied with present accomplishments, and continuously in search of new ideas ...[106]

Endless change and constant stimulation: whether of things or sensations, Pop was a life*style* based on *consumption*, the logical development of the consumerist society and ethos.

A reaction began to take place around 1967. Within Pop, the frantic pace of expendability slowed, and revivalism and nostalgia for the 1920s and 1930s became increasingly common. More importantly, youth's values underwent something of a transformation, leading eventually to a rejection of the pro-technological, synthetic materials and living up-to-the-minute values of High Pop. In 1966 and 1967 a peaceful revolution brought about by drugs and consciousness-raising had seemed possible. One ex-hippy recounted how he 'truly believed that a revolution could be brought about by colour, sounds and imagery'. But, in 1968, a bloody revolution was a distinct possibility in a number of countries. During May in Paris, students pledged themselves to a revolution which 'will call in question not only capitalist society but industrial society. The consumer's society must perish of a violent death ...'.[107] This mood had repercussions in other countries, including England. There were sit-ins, occupations and even attempted overthrows at the London School of Economics, and the colleges of art at Hornsey, Guildford and Birmingham; and violent scenes outside the American Embassy in Grosvenor Square as anti-Vietnam protestors clashed with the police. Youth was, in the jargon of the day, becoming 'politicised'. Environmental and ecological issues such as the siting of the third London airport and the pollution of rivers became the focus of media attention.

The political and environmental concerns of the late 1960s made Pop's love of fashion, frivolity and fun seem trivial and narcissistic. The problem now, according to one planner speaking at an international conference, is how 'to direct our energies and all the technology which is at our service toward renewed human ends — ends which are not given, as was survival amid scarcity, but are now in need of being invented'.[108] The orgy of consumption was over and society needed to learn how to act responsibly. One thing the reformers had no doubts about: expendability had no place in a responsible world. In *Design for the Real World*, the bible of the new social consciousness in design, Victor Papanek railed against expendability, warning that

Throwing away furniture, transportation, clothing, and appliances may soon lead us to feel that marriages (and other personal relationships) are throw-away items as well and that on a global scale countries, and indeed entire sub-continents, are disposable like Kleenex ... That which we throw away, we fail to value.[109]

The era of expendability seemed to be at an end. As a cultural theory it had surely had its day.

This is not a view that would have been shared by Reyner Banham. Throughout the 1960s[110], Banham accepted and championed expendability because of his belief that it is an integral ingredient of technology and 'urbanised mass culture'. He maintained his stance of the 'knowing consumer', perceptively discussing the meaning of the products and imagery of popular culture in a lively and readable way. Banham was also consistent in his methodology, arguing that the difference between criticism of conventional high art and that of popular culture was that the latter required

an analysis of content, an appreciation of superficial rather than abstract qualities, and an outward orientation that sees the history of the product as an interaction between the sources of the symbol, and the consumer's understanding of them.[111]

Banham believed that, in the age of expendability, the critic had to assume the role of the interpreter of current (unspoken) meaning: the iconologer who was fully aware of the conditions of society in which (s)he lived. It mattered not to him whether he was discussing 1950s' Detroit car styling, some manifestation of 1960s' consumer culture such as the Ford 'Cortina' or Braun's kitchen applicances, or the latest fad of Pop including the transistor radio, drag racing, the cult film 'Barbarella', the television puppet programme 'Thunderbirds', or 'granny specs'[112] so long as it was an aspect of 'the live culture of the Technological Century'. Banham was also positive about the level of knowingness amongst consumers in the 1960s: the gains in visual discrimination brought about by television and the mass media had 'left consumers almost as sophisticated, hep and with-it as the designers'.[113]

Others of a broadly similar persuasion were less sure.[114] Lawrence Alloway's view, for example, is revealed in a review he wrote about the second generation of Pop artists which emerged in 1961 at the 'Young Contemporaries' exhibition — Peter Phillips, Derek Boshier, David Hockney, Allen Jones and Patrick Caulfield (Fig. 11). The new Pop artists displayed a figurative emphasis in their work with subject matter taken from racing cars, motor bikes, spaceships, film and pop stars, sex symbols, pinball and jukebox imagery, and neon-style lettering. The imagery was usually painted in bold and bright, often clashing colours. Although the 'second generation' may have shared the same type of imagery as Richard Hamilton, the use they put it to was significantly different. Whereas Hamilton had used imagery to make a sociologically inclined point in keeping with his belief that 'an ideal culture ... is one in which awareness of its condition is universal', 'second generation' painters used imagery in a more decorative and graphic, less didactic way. When generalising about a group of
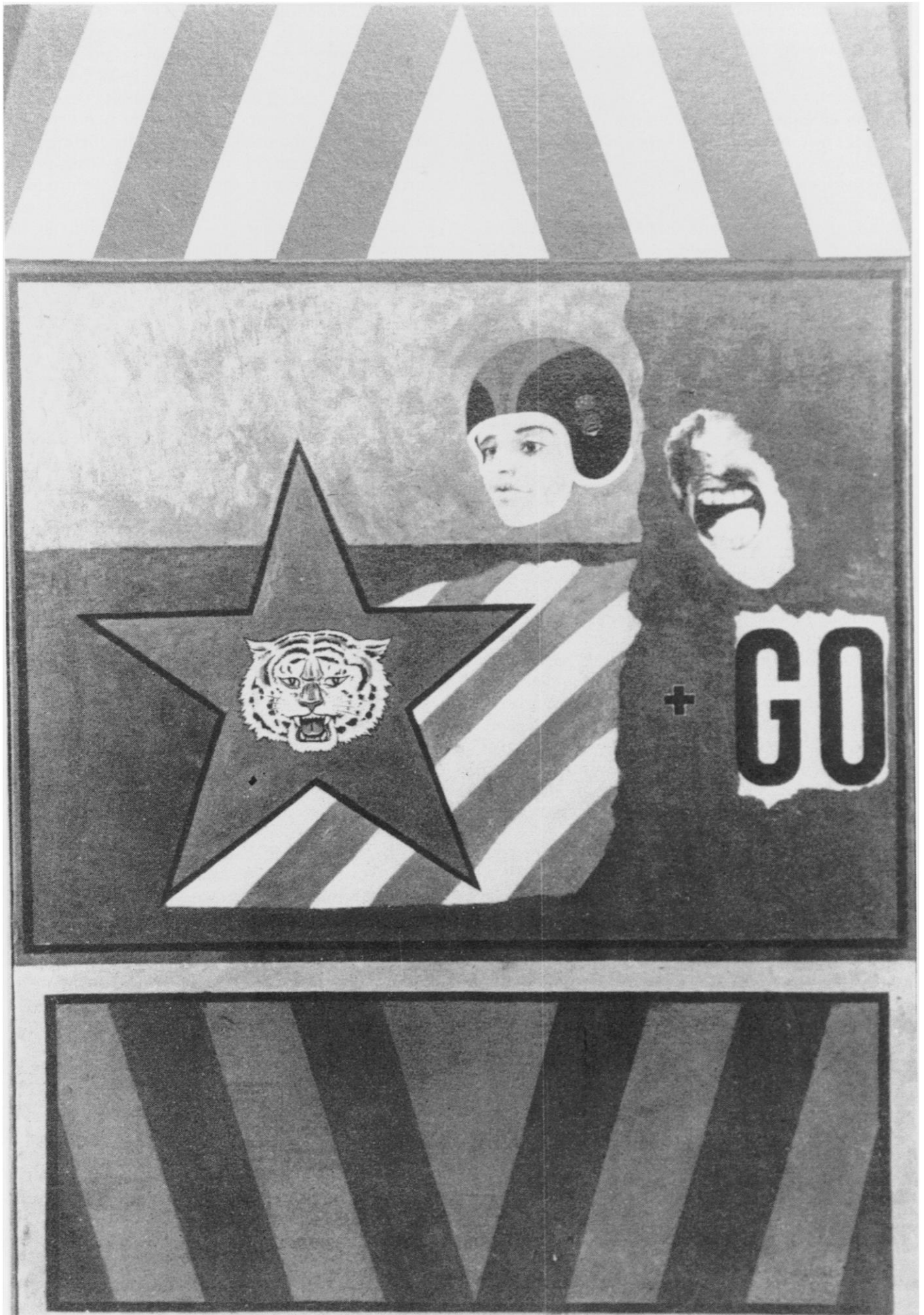
artists a degree of oversimplification is inevitable, but a difference did exist and Alloway tried to pinpoint it. Writing of Phillips in 1962, he criticised the 23-year-old artist's lack of a

sense of pop art as the latest resonance of long iconographical traditions. He seems to use pop art literally, believing in it as teenagers believe in the 'top twenty'. In a sense, the appeal to common sources within a fine art context, one of the strongest original motives for using pop art has been lost. The new Pop art painters use the mass media in the way that teenagers do, to assert, by their choice of style and goods, their difference from their elders and others.[115]

That a change had taken place is undeniable, but whereas Alloway attributed it to a break with a 'general tradition of iconographical art',[116] Phillips saw it as an inevitable historical development:

My awareness of machines, advertising, and mass communications is not probably in the same sense as an older generation that's been without these factors . . . I've lived with them ever since I can remember and so its natural to use them without thinking.[117]

It was indeed the fact that Phillips used mass culture *without thinking* that troubled Alloway. The Americanised mass culture that could be glimpsed in Britain in the early to mid 1950s provided a stark contrast to the visual poverty of austerity Britain. Alloway, Hamilton, Banham *et al.* affectionately viewed its exotic manifestations from the cultural and emotional distance of Europe. Their 'American leaning' made them feel near enough '(owing to language similarity and consumption rates) to have no ideological block against the content of U.S. popular culture', but it also meant they were 'far enough away from Madison avenue and Hollywood not to feel threatened . . .'.[118] Thus they could identify with *both* cultures and this gave them insights into each: insights denied to the person wholly indoctrinated into one. In their more critical and perspicacious moments this enabled them to fulfil the role of Alloway's 'knowing consumers'. The Pop generation were 'children of the Age of Mass-Communication', brought up on the mass media and consumerism. The way they reduced change and expendability to aspects of fashion made them, in Alloway's view, *unknowing* consumers and, therefore, prey to exploitation.

It is, however, highly doubtful whether consumers in the 1950s were as 'knowing' about expendability as Alloway apparently believed. Many post-war American cars, for example, were advertised as if each new model was the culmination of a line of development rather than just the latest novelty in a continuing process of style obsolescence. Conversely, one could argue that it was the Pop

Fig. 11. Peter Phillips, *Motorpsycho/Go*, 1962, oil on canvas with lacqued wood, Private Collection.

consumers of the 1960s who were more 'knowing' because Pop styles were presented as no less — but, implicitly, no more — than the newest fad or fashion whose days were, inevitably, numbered. Probably there was little genuine and comprehensive political *knowingness* about consumerism and expendability in either decade.

In the 1950s and 1960s the protagonists of expendability as a cultural theory were ambiguous, vague, or accommodating about its political implications. Banham maintained an apolitical stance, claiming that

Pop is now so basic to the way we live, and the world we live in, that to be with it, to dig the Pop scene, does not commit anyone to Left or Right, nor to protest or acceptance of the society we live in. It has become the common language, musicial, visual and (increasingly) literary, by which members of the mechanised urban culture of the Westernised countries can communicate with one another in the most direct, lively and meaningful manner.[119]

Banham may well be right to identify the common currency role of mechanised urban culture, but we should be wary of his claim that it was an apolitical system. We are now able to locate historically the cultural theory of expendability within the 'high mass-consumption' or consumerist stage of the consumer society. Its roots were economic and, ultimately, socio-political. We also now realise that, to identify solely the 1960s as 'the decade of disposability' is misleading because many of the attitudes to disposability in the 1960s were extensions of wider, post-war attitudes whose roots were pre-war. They are attitudes that still underlie today's consumerist society. And in our own period of excessive style-consciousness, there is probably even less knowingness amongst consumers about the economic and socio-political roles of design.

Notes

1. Boyden Sparkes, 'An Industrial Design for Living', *The Saturday Evening Post*, 15 December 1934, p. 10.
2. Sheldon and Martha Cheney, *Art and the Machine*, New York, 1936, p. 119.
3. William Acker quoted in Jeffrey Meikle, *Twentieth Century Limited: Industrial Design in America, 1925–1939*, Philadelphia, 1979, p. 72.
4. Raymond Loewy in a letter to *The Times*, 19 November 1945.
5. Roy Sheldon and Egmont Arens, *Consumer Engineering: A New Technique for Prosperity*, New York, 1932, p. 54.
6. *Ibid.*, p. 54.
7. Meikle, *op. cit.*, p. 210.
8. *Ibid.*, p. 106.
9. Sheldon and Arens, *op. cit.*, pp. 64–5.
10. *Ibid.*, p. 65.
11. William E. Leuchtenburg, *A Troubled Feast: American Society Since 1945*, Boston, 1983, p. 38.
12. J. Gordon Lippincott, *Design for Business*, Chicago, 1947, p. 14.
13. *Ibid.*, p. 14.
14. *Ibid.*, p. 15.
15. *Ibid.*, p. 16.
16. *Ibid.*, p. 2.

17. Walter T. K. Nugent, *Modern America*, Boston, 1973, p. 334.

18. Quoted in Peter Lloyd Jones, 'A Taste of Class', *Architectural Review*, February 1979, p. 77.

19. Sheldon and Arens, *op. cit.*, pp. 61–2.

20. Sexism was, predictably, rife in American writings about design. Typical is J. Gordon Lippincott's sentiment that 'Above all, women like pretty things — pretty dresses that make them beautiful, jewelry and furs that make them glamorous. The clothing and cosmetic industries have appealed to this basic desire of all women and as a result have grown and prospered tremendously during the past 20 years'. *Design for Business*, p. 52.

21. J. F. McCullough, 'Design Review — Cars '59', *Industrial Design*, February 1959, p. 79.

22. *Ibid.*, p. 79.

23. Harley J. Earl quoted in *ibid.*, p. 79.

24. Harley J. Earl, 'What Goes Into Autombile Designing?', *American Fabrics*, no. 32, 1955, p. 78.

25. Eric Larrabee, 'The Great Love Affair', *Industrial Design*, no. 5, 1955, p. 98.

26. George Nelson, 'Obsolescence', *Industrial Design*, no. 6, 1956, p. 88.

27. *Ibid.*, p. 82.

28. J. Gordon Lippincott, 'The Yearly Model Change Must Go', *Product Engineering*, 13 June 1960, p. 24.

29. Quoted in Bernard Levin, *The Pendulum Years*, London, 1970 (paperback edition 1972), p. 211.

30. Richard Hoggart, *The Uses of Literacy*, London, 1957 (paperback edition 1958), p. 340.

31. *Ibid.*, p. 345.

32. Quoted in Anthony Hartley, 'The Intellectuals of England', *The Spectator*, 4, May 1962, p. 581.

33. *Ibid.*, p. 580.

34. Michael Farr, *Design in British Industry*, Cambridge, 1955, p. 134.

35. Nikolaus Pevsner, 'Postscript', in *ibid.*, p. 317.

36. *Ibid.*, p. 317.

37. *Ibid.*, p. 317.

38. *Ibid.*, p. 318.

39. *Ibid.*, p. 317.

40. Alec Davis, 'Popular Art Organised', *Architectural Review*, November 1951, p. 326.

41. *Ibid.*, p. 326.

42. Individual members of the Independent Group have differing interpretations of its history and significance. No definitive assessment is available and the enquiring reader is recommended to form his or her own opinion after viewing the 'Fathers of Pop' video/film (Miranda Films, London, 1979); chapter 3 in my book *Pop Design: From Modernism to Mod*; Frank Whitford, 'Paolozzi and the Independent Group' in *Eduardo Paolozzi* exhibition catalogue (Tate Gallery, London, 1971, pp. 44–8); Toni del Renzio, 'Pop', *Art and Artists*, August 1976, pp. 14–19; and Penny Sparke and Anne Massey, 'The Myth of the Independent Group', *Block*, number 10, 1985, pp. 48–56.

43. Lawrence Alloway, 'The Development of British Pop', in Lucy Lippard (ed.), *Pop Art*, London, 1966 (1974 edition), pp. 31–2.

44. Lawrence Alloway, 'Artists as Consumers', *Image*, no. 3, 1961, p. 18.

45. Reyner Banham, 'Representations in Protest', *New Society*, 8 May 1969, p. 718.

46. Reyner Banham, 'The Atavism of the Short-Distance Mini-Cyclist', *Living Arts*, no. 3, 1964, p. 92.

47. *Ibid.*, p. 92.

48. Reyner Banham on 'Tonic to the Nation?', BBC Radio 4, 29 November 1976.

49. Lawrence Alloway, 'The Long Front of Culture', *Cambridge Opinion*, no. 17, 1959, p. 25.

50. Reyner Banham, *Theory and Design in the First Machine Age*, London, 1960, p. 19.

51. Buckminster Fuller, 'The Comprehensive Man' (1959) in James Meller (ed.), *The Buckminster Fuller Reader*, 1970 (paperback edition 1972), p. 335.

52. John McHale, '2000+', *Architectural Design*, February 1967, p. 65.

53. Lippincott, *op. cit.*, p. 8.

54. *Ibid.*, p. 10.

55. Reyner Banham, 'Machine Aesthetic', *Architectural Review*, April 1955, p. 225.

56. Reprinted in Umbro Apollonio (ed.), *Futurist Manifestos*, London, 1973, p. 172.

57. Banham, *Theory and Design*, *op. cit.*, p. 327.

58. Reyner Banham, 'Vehicles of Desire', *Art*, no. 1, September 1955, p. 3.

59. *Ibid.*, p. 3.

60. *Ibid.*, p. 3.

61. Reyner Banham, 'Who is this Pop?', *Motif*, no. 10, 1962/3, p. 12.

62. From a letter to the Smithsons dated 16 January 1957 in Richard Hamilton (ed.), *Collected Words*, London, 1983, p. 28.

63. John McHale wrote two articles entitled 'The Expendable Ikon' which appeared in *Architectural Design* in February and March 1959.

64. Richard Hamilton quoted in *Richard Hamilton* exhibition catalogue, Guggenheim Museum, New York, 1973, p. 45.

65. Richard Hamilton, 'Popular Culture and Personal Responsibility' (1960) in Hamilton (ed.), 1983, p. 151.

66. Alison and Peter Smithson, 'But Today We Collect Ads', *Ark*, November 1956, p. 50.

67. Alison and Peter Smithson, 'The Future of Furniture', *Architectural Design*, April 1958, p. 177.

68. Alison and Peter Smithson, 'Talks to Fifth Year Students', *Architects' Journal*, 21 May 1959, p. 782.

69. John McHale, '2000+', *op. cit.*, p. 67.

70. Reprinted in Peter Cook (ed.), *Archigram*, London, 1972, p. 8.

71. *Ibid.*, p. 16.

72. *Ibid.*, p. 16.

73. *Ibid.*, p. 16.

74. *Ibid.*, p. 15.

75. *Ibid.*, p. 11.

76. Reyner Banham, *Megastructure: Urban Futures of the Recent Past*, London, 1976, p. 17.

77. Peter Cook, 'Responses', *Architectural Association Journal*, December 1966, p. 140.

78. Editorial of *Archigram* 4, reprinted in Cook (ed.), 1972, p. 27.

79. *Ibid.*, p. 27.

80. Reyner Banham, 'A Clip-on architecture', *Design Quarterly*, no. 63, 1965, p. 30.

81. Peter Cook, 'What of the Future?', in Ella Moody (ed.), *Decorative Art and Modern Interiors 1966–7*, London, 1966, p. 6.

82. Peter Cook, 'Control and Choice', reprinted in Cook (ed.), 1972, p. 68.

83. Cedric Price in Jim Burns, *Arthropods*, London, 1972, p. 58.

84. Cedric Price quoted in Paul Barker, 'Pop-Up Parliament', *New Society*, 29, July 1965, p. 8.

85. *Ibid.*, p. 8.

86. Stephen Bayley, *The Car Programme*, exhibition catalogue, Boilerhouse Project, London, n.d., p. 11.

87. *Ibid.* p. 12.

88. Janice Elliott, 'Design + Function', *Sunday Times Colour Supplement*, 15 April 1962, p. 26.

89. Terence Conran quoted in Polly Devlin, 'The Furniture Designer Who Became a Reluctant Businessman', *House and Garden*, November 1964, p. 78.

90. Harold Wilson, 'Labour and the Scientific Revolution', *Labour: Annual Conference Report*, 1963, p. 140.

91. Priscilla Chapman, 'What the Kids are Doing', *Sunday Times Colour Supplement*, 30 August 1964, p. 42.

92. Priscilla Chapman, 'The Year in Design', *Sunday Times Colour Supplement*, 27 December 1964, p. 30.

93. Anon., 'Bulge Takes Over', *Town*, September 1962, p. 43.

94. George Melly, 'Pop World and Words', *New Society*, 18 October 1962, p. 32.

95. In my *Pop design: From Modernism to Mod*, I chronologically divide Pop into three periods which, with ironic reference to the Renaissance, I term 'Early', 'High' and 'Late'.

96. Michael Wolfe, 'Life Enhancing', *Society of Industrial Artists' Journal*, January 1965, p. 10.

97. Peter Collins, 'Throw-Away Furniture', *Telegraph Colour Supplement*, 19 September 1965, p. 43.

98. For a fuller account see my 'Semi-Works of Art', *Journal of the Furniture History Society*, September 1987, pp. 108–126.

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99. Quoted in *Design*, April 1966, p. 54.

100. Bryan Duffy quoted in Francis Wyndham, 'The Model Makers', *Sunday Times Colour Supplement*, 10 May 1964, p. 21.

101. Drusilla Beyfus, 'Op Art Rooms', *Telegraph Magazine*, 17 September 1965, p. 40.

102. Anon., *Tailor and Cutter*, 27 January 1967, p. 98.

103. Barbara Griggs, 'Fashion on the Boil', *Harpers Bazaar*, February 1965, p. 66.

104. Drusilla Beyfus, 'How to Tell a Girl From a Boy', *Sunday Times Colour Supplement*, 20 September 1964, p. 47.

105. Mary Quant, *Quant By Quant*, London, 1966, p. 74.

106. Harley J. Earl, 'What Goes Into Automobile Designing', *op. cit.*, p. 78.

107. Sorbonne students quoted in Theodore Roszak, *The Making of a Counter Culture*, London, 1970 (1971 edition), p. 22.

108. Hasan Ozbekham quoted in 'Technology: good servant or errant monster', *Design*, October 1969, p. 56.

109. Victor Papanek, *Design for the Real World*, London, 1972 (1974 edition), p. 78.

110. And, indeed, up to the present in his *New Society* articles.

111. Reyner Banham, 'A Throwaway Aesthetic', *Industrial Design*, March 1960, p. 65.

112. For a selection of his writings, see Reyner Banham, *Design By Choice*, London, 1981.

113. Reyner Banham, 'A Straight Look at Pop Culture — 1', *The Observer Weekend Review*, 17 November 1963, p. 21.

114. British cultural critics in the 1960s, as one might have expected, continued to dismiss Pop culture as capitalist and exploitative. Raymond Williams, *Communications*, London, 1962; *Discrimination and Popular Culture*, edited by Denys Thompson, London, 1964; and Stuart Hall and Paddy Whannel, *The Popular Arts*, London, 1964, upheld Williams' and Hoggart's values of the 1950s. Hall and Whannel, for example, contrasted popular art and mass art which, they condemned as destroying '... all trace of individuality and idiosyncracy ... and assumes a sort of depersonalised quality, a no-style' (p. 102). They also believed that in mass art, the 'element of manipulation is correspondingly high ...' (p. 102).

115. Lawrence Alloway, 'Pop Art Since 1949', *The Listener*, 27 December 1962, p. 1087.

116. *Ibid.*, p. 1087.

117. Peter Phillips, 'Statement' in *The New Generation: 1964* exhibition catalogue, Whitechapel Art Gallery, 1964, p. 72.

118. Lawrence Alloway, 'Notes on Abstract Art and the Mass Media', *Art*, 27 February–12 March 1960, p. 3.

119. Reyner Banham, 'The Atavism of the Short-Distance Mini-Cyclist', *op. cit.*, p. 97.