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# A THEORY OF PURPOSEFUL OBSOLESCENCE

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## I

The ubiquitous phenomenon explored in this essay will be recognized under many different names, but I prefer to call it "purposeful obsolescence." Purposeful obsolescence exists (a) whenever manufacturers produce goods with a shorter physical life than the industry is capable of producing under existing technological and cost conditions; or (b) whenever manufacturers or sellers induce the public to replace goods which still retain substantial physical usefulness. In the first case, producers deliberately make goods in inferior quality or durability, thus reducing their *physical* utility and requiring frequent replacements. In the second case, businessmen deliberately reduce the *psychological* utility of goods in the hands of consumers, so that they must be replaced before their physical utility is exhausted. The concept is a slippery one, and it is easy to confuse purposeful with other kinds of obsolescence. The key to the concept, *deliberateness*, can best be grasped by examining several consumer goods industries. As for terminology, I have been using the term "purposeful obsolescence" for several years, but make no claim of coining it.<sup>1</sup> Very possibly it exists in economic literature, although I have not seen it. Despite its ponderousness, this term focuses attention on the deliberate nature of much of the waste and loss of utility in our economic system.

The following two sections examine the two main techniques of purposeful obsolescence: limitation of durability ("induced perishability") and artificial style changes ("forced fashion").

## II

Consider the lowly razor blade. Countless advertisements tell us that a certain blade will give many shaves, yet daily the average man's irritation is renewed upon finding that the blades will last through *one* shave, and no more, unless he buys gadgets and takes the trouble to sharpen used blades. Unlike Thoreau's axe, they do not grow sharper with use. Can manufacturers produce more durable blades? If not, there is no purposeful obsolescence, for the manufacturer is doing the best he can. But there is reason to believe that far more durable blades can be produced under existing technological and cost conditions. Since profits from the sale of razor blades come from frequent replacements rather

<sup>1</sup> "Obsolescence" comes close to the concept developed in this paper, but this term was coined and is used with approval by so-called "consumer engineers" who want to stimulate replacements, while "purposeful obsolescence" is used by me with disapproval of this policy. Leland J. Gordon properly criticizes the principle of obsolescence as "nothing more than the consumer engineer's version of the make-work fallacy." *Economics for Consumers* ch. 8, esp. pp. 130-1.

than from the original purchase, sales volumes would be reduced if the blades were more durable. Indeed, some manufacturers sell excellent safety razors at a low price, knowing full well that to use the razor the purchaser must buy a certain blade to fit it, and must keep buying! Hence the lack of standardization in safety razor sizes and shapes. The *deliberate* perishability of what could easily be a durable good reduces the purchaser's scale of living.<sup>2</sup>

The producers of flashlight bulbs have actually reduced the durability of their product. In their own words:

Two or three years ago we proposed a reduction in the life of flashlight lamps from the old basis on which one lamp was supposed to outlast three batteries, to a point where the life of the lamp and the life of the battery under service conditions would be approximately equal. Sometime ago, the battery manufacturers went part way with us on this and accepted lamps of two battery lives instead of three. This has worked out very satisfactorily.

We have been continuing our studies and efforts to bring about the use of one battery life lamps. . . . If this were done, we estimate that it would result in increasing our flashlight business approximately 60 per cent. . . .<sup>3</sup>

In the field of foods and drugs purposeful obsolescence takes the form of limited potency. An example is Vitamin D. By controlling the Steenbock patents, the Wisconsin Alumni Research Foundation (no formal connection with the University of Wisconsin) has controlled the production and use of Vitamin D since 1925. Investigation by the Anti-trust Division of the Department of Justice disclosed that the Foundation has limited the potency of vitamin products and "has considered plans to denature and adulterate Vitamin D preparations in order to maintain high prices." Several of the Foundation's agreements with its licensees "so limit the potency of the licensed product as to make it worthless for medicinal purposes." It has also encouraged excessive dosages in order to increase sales. In 1939 an official of the Foundation said that

. . . in view of the fact that Vitamin D is no longer a distinctive Steenbock product but can be secured from a variety of sources, . . . the Foundation might as well favor the commercialization of high dosages unless there is *very* serious objection on the part of the A.M.A. officials toward a move of this sort.

Vitamin D is valuable in the prevention and cure of rickets. Since this disease occurs largely among children of the poor, whose need for Vitamin D is greatest, the incidence of the Foundation's high price policy is obvious. The Foundation itself admitted that its high retail prices were severely criticized by prominent pediatricians.<sup>4</sup>

Purposeful obsolescence is rife in the field of clothing, partly by means of

<sup>2</sup> According to Nicholas Barbon, the qualities of "knives and razors, whose sharpness arises from the good temperament and mixture of the steel," are "difficultly discover'd." *A Discourse of Trade* (1690, reprinted by the Johns Hopkins Press, Baltimore, 1934), Chapter II, "Of the Quantity and Quality of Wares."

<sup>3</sup> *Hearings*, Senate Committee on Patents, 77th Cong., 2nd sess., Part I, p. 630.

<sup>4</sup> Wendell Berge, *Cartels: Challenge to a Free World*, pp. 82, 83, 84, 90, 97-98, 102.

limitation of durability. A fur coat should last many years, but when fur is dyed, as it usually is, durability is sharply reduced. A clay bath covers up the fact that sleazy sheets will wear out quickly. Imitation silk, genuine silk of inferior fiber, or silk woven with too few threads, is weighted in a metal bath, which hastens deterioration. The purposeful obsolescence of textiles harms not only consumers, but also laundries and dry-cleaners, who are often blamed for "ruining" the shoddy stuff left with them.

In some industries, when durability *has* been improved, the producer bewails his fate. From 1920 to 1924 the average life of rubber tires was increased from one year and four months to one year and eight months. In its official bulletin of September 15, 1924, the Cleveland Trust Company remarked: "These figures explain some of the troubles that have beset the tire industry, which *has been penalized* for the marked success in improving its product." "How penalized?" comments Stuart Chase. "By slower turnover, and loss of sales. Could the drive behind adulteration be more effectively illustrated?"<sup>5</sup>

The purposeful obsolescence involved in patent medicines is aptly put by Sidney and Beatrice Webb: "A man will buy only two or three boxes of pills which can and do really cure him of an ailment, but he will continue to buy for years those remedies which never do him any good."<sup>6</sup> And Stuart Chase wryly comments: "Keep 'em coming, but never quite cure 'em. For to cure them would have an unfortunate effect on sales." As H. G. Wells showed in his novel *Tono Bungay*, habit-forming drugs are the ideal commodity for replacement sales.

Some advertising slogans are aimed to make the product wear out fast, even if the product itself is of high quality. "Have You Changed Your Oil Recently?" Consumers have wasted much good oil by following the advice of commercial interests urging them to change their motor oil more frequently than necessary. The trouser manufacturers urge us to "Sit Down More," while the shoe manufacturers beseech us to "Stand Up More." And so, whether we sit, stand, kneel or ride, we serve not God but mammon.

In most cases of limited durability the seller's motive is a flow of goods with the shortest feasible life. Quick turnover, repeat sales, lead to maximum profits. Consumers take little time to judge merchandise; often they buy what seems cheapest rather than what is best. Of course, if quality or durability is too much diminished there might not be any repeat sales. The producer must draw the line somewhere between low quality and outright adulteration. If fashions change rapidly, so that goods are discarded early, the consumer might not even find out how poor the quality really is. The extent to which purposeful obsolescence is employed depends partly on the nature of the goods. As Hobson pointed out, it is easier to adulterate necessities than luxuries, which are bought with some care. A new product is usually well made, but there is a tendency to skimp on its quality once a mass market has been established and its use becomes

<sup>5</sup> Stuart Chase, *The Tragedy of Waste*, p. 74. Of course, later technological improvements were carried out to the great good of the public.

<sup>6</sup> Sidney and Beatrice Webb, *The Decay of Capitalist Civilization*.

a habit; many nationally advertised brands coast along on their original reputation for quality. It is not always the fault of the manufacturer. Greedy stockholders or unsatisfied creditors, with no interest in sound production and merchandising, clamor for quick turnover and large profits. Store buyers, whose firms must sell at low prices, force the manufacturer to make inexpensive goods with "style value." And the producer finds it hard to refuse an outright demand on the part of dealers for goods that won't last. Only a few old fashioned manufacturers, with a pride in good workmanship, will resist this siren call.<sup>7</sup>

## III

The automobile industry furnishes a particularly interesting example of purposeful obsolescence. Here we have a durable consumers good; with reasonable care, an automobile will give good service for many years. But—except for the recent war years—it is common practice for owners to replace their cars every two or three years, in many cases every year. The purchaser of a new car gets a trade-in allowance on his old car, and pays the difference in cash or by instalments. Thus we have always had *two* automobile markets in the United States: The new car market and the used car market. In great cities, in small towns, and on the farm, ancient jalopies rattle alongside bright, shiny new cars. Let us focus attention on the new car market.

What factors induce millions of people each year to replace "old" cars that are still in excellent condition? To be sure, some people do not want to be bothered by repairs; they prefer to drive a succession of cars, none of which is more than one or two years old. The rich, the well-to-do, and traveling salesmen might reasonably consider this a wise policy. But the important fact is that millions of modest-income families did the same thing, especially in the 1930s. The fundamental reason seems to be the annual style change. A person driving a 1937 model in 1939 was driving a partly obsolete vehicle, measured by market standards. By means of display windows, automobile shows, high pressure advertising and salesmanship, and appeals to pride and vanity, the average American family is induced to discard its car while still new (physically) and to buy a brand-new one. Inasmuch as trade-in allowances on cars two or three years old are usually a small part of the purchase price, the effect of the transaction is virtually a scrapping of the old car. In the absence of annual model changes, most people would undoubtedly drive the same vehicle several more years, but under our present system, cars lose psychological (and therefore economic) utility long before they lose physical utility.

If each year's model were better than that of the preceding year, replacement would be an entirely rational consequence of technological improvement. But this is no longer the case. Until about 1930, each year witnessed significant improvements in speed, economy in the use of gas and oil, safety, comfort, durability, and appearance. The Model A Ford was a tremendous improvement

<sup>7</sup> For example, an old New York firm producing rulers for three generations has rejected its dealers' advice to use cheap materials so that the rulers will wear out fast. *The New Yorker*, May 25, 1946, p. 3.

over the brute serviceability of the Model T, and the Ford V-8 a great improvement over the Model A. The same was true of the other brands. A 1930 car, of whatever make, was better than a 1928 car. But there was little genuine improvement in a 1940 over a 1938 model. After about 1930 the auto industry was a mature industry. Its pioneering days were over. (Out of more than 1000 firms once in business, only 10 survive today.) Throughout the 1930's new models appeared every year, but in general they were not faster, safer, more economical or more comfortable, and did not always look better. The "differences" so highly touted in advertisements were a case of Tweedledum *v.* Tweedledee: slightly changed radiator grille or fender design, more bright chromium, more of different gadgets. Even if each year's model were a genuine improvement over the last, it is doubtful if the improvement is worth the cash difference between the new car price and the trade-in allowance.

Manufacturers *could* produce the same model for three or four years, changing only to incorporate substantial technical improvements. But the industry seeks to make the economic life of a car short, so that annual sales volume may be swelled by replacements. Seventy-five per cent of each year's output goes to people who already own cars, and who could not be persuaded to give up their year-old cars unless they believed them to be out of date.

Moreover, the auto industry is an oligopoly: the market is dominated by three or four large companies. In the pioneering days of the industry—roughly up to 1930—each firm might have expected a large sales increase to follow a price reduction, for the total market was growing rapidly and price cuts reached down into lower income groups. But by around 1930 the domestic market was approaching saturation. The *total* demand could not be expanded much more.<sup>8</sup> The chief way to get new business was to attract potential customers away from rival brands. To do this by price-cutting would have led to cut-throat price wars. If one firm should cut prices substantially and gain much new business, the rival firms, being few in number, would feel the loss keenly and would be impelled to retaliate. Each firm fearing its rivals' reactions, none institutes a price cut independently. (When the depression sharply reduced the demand for new cars, the three leading producers did not reduce prices in order to maintain output; instead, they cut production schedules in order to maintain prices.) Hence the price range of all cars is quite uniform among the leading brands and quite stable over long periods of time. Rivalry takes the form of so-called "quality" competition and high-pressure advertising campaigns. To convince the public of the desirability of trading in the "old" car, the new models feature an endless variety of trivial gadgets. As a result, automobiles

<sup>8</sup> In 1920 there was one car in use for every 12 persons in the United States. In 1921 the late General Ayres estimated that by 1926 the saturation point would be reached, everybody who could afford a car would own one, and thereafter the output of the industry would be regulated by the annual replacement of worn-out cars. He predicted excess plant capacity, but did not foresee the powerful influence of purposeful obsolescence. L. P. Ayres, *The Automobile Industry and Its Future* (Cleveland Trust Co., Cleveland, 1921.) By 1930 the export market helped to sustain large-scale production and lower prices than would have prevailed otherwise.

lose value much faster than they wear out, because the auto industry hastens the obsolescence of all cars now in use.

Millions of families own used cars but could not afford to buy new ones. In this sense purposeful obsolescence may serve a good purpose, for by stimulating new car replacements it swells the stock of used cars and thus makes automobile ownership possible for the lower income groups. If the used car is passed on to a buyer who never before owned a car, a trade-in sale might be considered a new sale rather than a replacement, for it increases the total number of cars in use. On the other hand, many people would never *buy* a used car, but in the absence of style changes would not mind driving their own car for several years. The scale of living of such people is reduced by their spending money for a perennial succession of new cars. Finally, even trivial style changes require re-tooling, new dies and patterns, changes in assembly lines, and other production changes which the consumer pays for in the long run. The resulting costs, plus the gadgets, prevent prices from falling as far and as fast as technological progress and volume sales would warrant, and keep some people from owning cars at all. Annual style changes are a wasteful feature of an industry which is still adjusted to the days of an expanding market, instead of to a market which can increase only if wages go up or prices go down. In the absence of purposeful obsolescence, only a more equitable distribution of (real) income can guarantee a steady domestic market for the product of a mature industry.

The classic example of purposeful obsolescence is in women's clothing. A woman may own a hat which she bought last year, it may have several seasons' more wear in it, and it may be esthetically appealing, yet she must discard it and buy a new one in order to be "in style." It matters not whether the new hat looks better or worse on her; the criteria appear to be based on a primitive tribal compulsion rather than on esthetic grounds. In women's dresses, fashions change with the rapidity of a whirling dervish. For example, in 1939-40 the New York market produced 125,000 models; in dresses above \$4.75 wholesale, less than three hundred dresses per model; below \$4.75, less than one thousand dresses per model. (Paris at her zenith never produced more than 5,000 models a season, of which perhaps no more than 10 per cent ever went into large production.) "Whatever else this may be, it is not efficiency . . . All the designers in the world, past, present, or future, could not produce one hundred and twenty-five thousand models that had an artistic right to live in any one year. . . ." And in 1940 one store (Gimbels) produced 1,280 models, and sold over \$2,000,000 worth of apparel.<sup>9</sup>

Clearly, frequent fashion changes result in obsolescence for last year's models. If style changes were the manufacturer's response to gradual changes in consumer tastes, they would not constitute purposeful obsolescence. But women may be entirely satisfied with their present hats, dresses, or shoes, until the new fashions are "introduced." The manufacturers of clothing, and the suppliers of materials, foist these changes upon the fair sex, in order to create a heavy annual or seasonal

<sup>9</sup> M. D. C. Crawford, *The Ways of Fashion*, pp. 16, 149, 249.

sales volume.<sup>10</sup> The obsolescence of women's hats, dresses, and shoes—and to a lesser extent, that of men's apparel—is purposeful. Hence, an item of clothing which still has many more seasons of usefulness and thus retains its *physical* utility, is discarded.<sup>11</sup> The resulting waste was recognized by Shakespeare in *Much Ado About Nothing*: "See'st thou not, I say, what a deformed thief this fashion is?"

But, it may be objected, the utility of women's clothing is more psychological than physical; it possesses a talismanic virtue. Crawford says: "It will take more than . . . the dull observations of practical people to restrict or restrain the immemorial, the essential inconsequentials of ladies' hats . . . . The women know that hats are crowns, not merely protection from cold, heat, wind, rain, and snow, and they wear head decorations as a tribute to the gods of charm and as protection against the banal powers of monotony . . . ." And most men, lacking true Byronic individualism, buy neckties for the flair they give the personality rather than for their wearing qualities. Nevertheless, producers and sellers of

<sup>10</sup> In 1925, for example, *Women's Wear* reported a drive by the hat manufacturers against the felt hat: "It wears too long." *The New York Times* (Feb. 4, 1925) quoted the shoe retailers' "hope to make the man who wears winter boots after May 15 as uncomfortable as he who wears a straw hat after September 15." Even the furniture industry announced a campaign to convert the American people to an annual change in furniture styles. Stuart Chase, *op. cit.*, pp. 93, 95-96.

The suppliers of materials have an interest in fashion changes. "The French fabric industries carried the burden of investment and speculation in cloth and always stood the expense of cloth experiments. Therefore the Paris dressmakers could safely experiment with new weaves, new colors, new textures and new designs. . . . The French fabric houses knew that if a model sold in . . . the world markets, . . . there would come from the same sources orders for French fabrics and accessories. . . .

"When a model was purchased by a foreign dressmaker, a store or a garment factory, the source of the fabric and the necessary yardage and costs were all included as a memorandum with the sale. This . . . made it possible for the French fabric producers to [know] . . . where the models had been sold; and they could judge, with a reasonable degree of accuracy, what the sale [of fabric] would amount to and when to expect it. . . ." Crawford, *op. cit.*, pp. 194-195.

In the United States in 1912 the woolen, cotton and silk manufacturers engaged in an elaborate (but unsuccessful) campaign to promote the "pannier skirt," which required at least 50 per cent more fabric. P. H. Nystrom, *Economics of Fashion* (Ronald, New York, 1928), ch. I. The length of skirts is apparently correlated with the business cycle; perhaps fabric manufacturers encourage long skirt styles in depression in order to sell more material.

During the war, CPA's Order L-85 influenced fashion more than Valentina or Sophie Gimbel. *Fortune*, October 1946, p. 132. Anticipating the repeal of this conservation measure, Hattie Carnegie introduced front and rear bustles! *Life*, September 23, 1946, pp. 104-5. Every radical change in the feminine silhouette uses up scarce fabrics sorely needed for veterans' suits. During the war much woolen fabric was diverted from men's to the more profitable women's wear. The former increased only 23 per cent over the 1939 level, as compared with 136 per cent for women's wear wools. If dresses were to drop just 2 inches in length, 50,000,000 more yards of fabric would be used within a year, thus raising a further obstacle to the production of veterans' suits. See *Consumers' Guide*, October 1946, p. 15. The shortage of textile fabrics is, of course, temporary.

<sup>11</sup> "The Directoire Suit may obsolete 6,000,000 garments now hanging in closets." Tobe (fashion editor) in *Women's Reporter*, July 1946.

clothing *deliberately* destroy the *psychological* utility of last year's styles in order to make room for this season's models.

This raises a nettling problem: what *is* utility in the field of fashion goods? If a hat or a dress is a *thing*, then its ability to satisfy depends at least partly on its physical qualities; but if a hat (or, more broadly, a style) is an *idea*, its utility is entirely subjective, using textiles or other materials only as a vehicle to carry the idea. If this is what a style means, then the utility of apparel has very little to do with its durability. This might lead us to conclude that fashion changes—being expressions of the many-faceted spirit of man—add utility, since the more the fashions changed, the better could the textile forms express consumer tastes and habits. But this would be so only if styles changed *gradually*, and were not forced. And, unlike an oil painting or a piece of sculpture, the new fashion is not preserved, but is soon scrapped for another “creation.” If fashions changed in order to attain beauty in dress, the result should be a gradual approach to artistic perfection. But this is not the case. As Veblen pointed out in *The Theory of the Leisure Class*, the alleged beauty of the prevailing fashions is spurious, since none of them will bear the test of time. “When seen in the perspective of half-a-dozen years or more, the best of our fashions strike us as grotesque, if not unsightly. Our transient attachment to whatever happens to be the latest rests on other than aesthetic grounds, and lasts only until our abiding aesthetic sense has had time to assert itself and reject this latest indigestible contrivance.”

In various places and at various times relatively stable styles have evolved: among the Chinese, Japanese and other Oriental nations; among the Romans, Greeks and other Eastern peoples of antiquity; and later, among the peasants of many European countries. These costumes, adjudged by critics to be more artistic and more satisfying than the fluctuating fashions of modern industrial communities, have borne the test of time and perspective, for they are not based on the principle of conspicuous waste. Indeed, in copying or adapting them, modern designers either admit their intrinsic superiority, or else attest their own poverty of creative imagination. (Cf. the parallel of revival architecture.)

Except for necessities of life, utility does not depend on exclusive ownership. As Professor Hawtrey says: “The protection given by clothes is exclusive to those who use them. But when people are not satisfied with a mere covering, and provide themselves with fine clothes pleasing to the eye, the enjoyment is shared by all who meet them.” Now if utility is shared by others than the owner, it follows that purposeful obsolescence destroys utility for others than the owner. A change in fashion makes last year's apparel distasteful not only to the wearer, but also to her friends, who may be ashamed to be seen with her.

Does the latest fashion satisfy a pre-existing desire, or do people automatically want what happens to be in vogue? As Professor Knight suggests, men (women) are as much concerned about wanting or appreciating the “right” things as they are about getting the things they actually want. And perhaps fashion changes are desired simply for the sake of change. “The struggle alone pleases us,” wrote Pascal, “not the victory . . . We never seek things for themselves, but for the search.” If this is so, and if (according to one school of thought) the

true function of apparel is to attract attention to the wearer, then its utility is based on its novelty, and the obsolescence of last year's apparel may be *necessary* in order to invest this year's apparel with utility! Fashion is founded on the contradictory desires to conform and to be different. Women hate to be seen in last year's hat, yet they want to wear what "everybody" is wearing. Do they want to appear different, or the same? Probably both. Women want to conform to the prevailing style and still be different in detail.

The utility of fashion goods may be physical or psychological; psychological appeal may be based on social approval or on novelty. Under any of these assumptions, frequent rotation of fashions destroys utility. If the utility is physical, then the changed fashion forces consumers to discard still useful garments. Utility based on social approval is immediately destroyed when the "old" garment loses social caste. If utility is based on novelty, then every change in fashion destroys the attention-arresting features of the displaced garment. In the absence of frequent fashion changes, all women would wear the same clothes longer, and nearly all would feel appropriately dressed. It is true that standardization of women's hats would entail greater psychological repression than standardization of sewer pipe or plumbing equipment. Industry ought to provide a wide range of styles *at any given time*, in order to complement the great variety of ages, physical types and personalities. But it is not necessary to change fashions every season in order to achieve variety. To argue that (before the war) American producers were simply following the Paris fashions is naive, for the Paris couturiers were also busily engaged in the profitable game of forcing obsolescence. Some of the economic consequences of fashion changes will be explored in Section VI.

Let us step into a college library. An analysis of distribution of imprint or publication dates in selected library book lists shows an initial lag, up to three years, due to delay in appearance of reviews and acceptance by scholars, and thereafter a drop in the proportion of older titles, indicating a preference for newer books because the older ones have become obsolete. For the entire Shaw *List* (1931) the rate of obsolescence is 8.1 per cent. "This indicates that for each year back from the compilation of the list, the number of titles chosen was 8.1 per cent smaller than for the preceding year. That is, if there were 500 titles ten years old, there were some 8.1 per cent fewer, or approximately 460 in the eleven-year-old group . . ."<sup>12</sup> The causes of book mortality or obso-

<sup>12</sup> Charles F. Gosnell, "Obsolescence of Books in College Libraries," *College and Research Libraries* (American Library Assn., Chicago), March 1944, pp. 115-125. Although the rate of obsolescence was 8.1 per cent for the total Shaw *List*, it varied from a high of 21.1 per cent for books on Physical Education and Health to a low of 4.0 per cent for the Classics. High rates of obsolescence (over 10 per cent) were found in books on Education, Economics, Chemistry and Physics, Psychology, Sociology, and Political Science. Low rates (under 5 per cent) were found in books on Music, Philosophy, and the Classics. Table I, p. 120. The distribution of imprint dates of titles circulated in the Hamilton College Library in the period 1938-41 revealed a rate of obsolescence of 4.9 per cent. Lewis Stieg, "A Technique for Evaluating the College Library Book Collection," *Library Quarterly* 13: 34-44, January 1943. This is less than the 8.1 per cent for the Shaw *List* and may result partly from the fact that the entire college collection is much larger than the compilers' selected lists, and must contain more older material.

lescence (not to be confused with physical deterioration or destruction of books) vary from extension of scientific knowledge, technological and cultural development, to pure fad. In some fields, since much of the current research is published in professional journals, there is less need for new text and reference books as a vehicle for current publication. On the other hand, as Gosnell says, "the rapid developments occasioned by the journal articles must occasion frequent revisions and changes in textbooks and handbooks and should be reflected in a high rate of obsolescence."

Much of this obsolescence is *not* purposeful; some of it is inevitable and even desirable. But the obsolescence of some books is neither necessary nor desirable; it is engineered by publishers in order to stimulate sales. A sound text or reference book in an established field ought to be usable for several years. Take economics. Now, economic principles do not have the immutability of natural law, as John Stuart Mill erroneously observed in 1848. But a new federal statute further regulating the banking or utilities or transportation system, a wave of strikes, etc.,—these developments do not render obsolete a careful, scholarly textbook written just before such events. A textbook is not supposed to be a storehouse of the latest facts. A well-trained and experienced teacher ought so be able to work the recent or current changes into his lectures, especially since he has the professional journals to draw upon.

Yet nearly every year popular textbooks in many fields are brought out in *new editions*, which add or change only a few pages or a chapter. In some cases the dust jacket or advertising blurb or "preface to the revised edition" claims that "not only is new material incorporated, but the entire text has been completely rewritten." The result *may* be a new book so superior to the original that it ought to supplant the latter for teaching or reference purposes. But in a great many cases the new edition incorporates trivial changes analogous to the chromium trim on the latest models of automobiles. In such cases the publishers' high pressure advertising (and complimentary copies) leads some professors to order the latest edition. This involves many new copies for the library and the college bookstore. It sharply reduces the market value of the earlier editions already in the possession of libraries, bookstores and students. The college and the students find that their investment in books has shrunk in value.

The people who gain from this practice are, first, the publishers, who sell more books when they can claim to have the "latest thing" in a certain field, and second, the authors, who gain in prestige and (if they have been shrewd enough to sign the right kind of contract) in added royalties. (However, the publisher must also consider the loss on unsold inventories of older books.) If publishers and authors were really interested only in incorporating the latest developments in the field, they could sell an annual supplement for 15 or 25 cents.<sup>13</sup> One of the unfortunate corollaries of the modern college's insistence

<sup>13</sup> In commenting on "the inflated and wickedly competitive [*sic*] textbook industry," Jacques Barzun says: "We have felled the Canadian forests for paper to print on, and we cannot see the truth for the woodpulp. . . . Evolution has endowed books with reproductive powers and we suffer from overpopulation. . . ." *Teacher in America*, pp. 67, 313.

on teaching from recent textbooks is that the average undergraduate seldom comes into direct contact with the great minds of the past or present. For in many fields the great scholars of today write specialized monographs and leave the textbook field to competent, but often uninspired writers.

The purposeful obsolescence of books increases the problems of library administration. The decision to order new text or reference books is a function of money and of space. In some fields, such as the Classics, money may be more wisely spent on books with a longer life expectancy. Suppose a college library has, for reference purposes, ten copies of a certain textbook published three years ago. Along comes an announcement of a revised edition. Should the librarian buy ten more copies, and throw out the original ten as obsolete? If he discards the old editions, money is lost. If he keeps them, and still buys the new edition, the shelves begin to overflow, unless the library plant is growing physically and in any case there is the cost of cataloguing the revised editions and housing and caring for the older material. And what guaranty is there that a still newer edition will not be published a year or two hence? Perhaps it would be wiser not to buy now, but to wait for a later revision. Carried *ad absurdum*, perhaps a library should *never* buy any text or reference books, for there is always the possibility that they will soon become obsolete! Finally, by the development of microprinting, books might someday be replaced by cards. Publishers would certainly resist this change, which would threaten the sale of conventionally printed books.<sup>14</sup>

We need not deplore the obsolescence of books in general, for, as Gosnell says: "Books represent one of the higher forms of culture and the rate at which they are discarded and replaced may give some suggestion as to the rate of evolution of the general culture of which they form a part . . ." But some of the obsolescence of books represents, not the evolution of ideas, but simply economic waste and inefficiency.<sup>15</sup>

#### IV

Some obsolescence is *not* purposeful, but results from invention and technical progress. In the area of producers' goods, Fabricant's studies show that the economic life of engines, boilers, motors and transformers ranges from half to two-thirds of the technical life.

Bibulous and nicotinic persons are familiar with restrictions on the re-use of

<sup>14</sup> Moreover, modern textbook bindings are designed to last many years. If frequent revisions render the earlier editions obsolete, it would be more economical to recognize books for what they really are—perishable goods—and to print them on cheap paper, with paper covers, as in Europe. But this would reduce publishers' profits and would violate the American tradition that a book is a book only when it is in board covers.

<sup>15</sup> The canonization of new books by publishers is a swift process these days. "Best sellers"—often nothing more than the latest fashion in reading—are frequently promoted in order to increase sales. In their advertising, publishers play upon the conspicuous consumption and snob appeal themes. ("Everybody is reading x; why not you?") At times we are engulfed in a great wave of quackish books on self-improvement, "historical" romances, etc. Limited editions and high prices of books apparently give some social satisfaction to certain "readers."

beer and whiskey bottles, tobacco cans, etc. "Every person is cautioned under penalties of law, not to use this package for tobacco again." Although a sturdy tin can or a well-constructed whiskey bottle is thereby prematurely scrapped, this is *not* purposeful obsolescence; it is necessary in order to aid government inspectors and to insure payment of taxes by having the manufacturer or wholesaler affix a stamp or seal that must be broken in order to open the container. In the same way, beer and soft drink bottlers pay a "crown tax." Once pried off, the bottle crowns are useless; thus tax evasion through re-use is difficult.

In modern warfare the rate of obsolescence of war matériel is tremendous. Only capital ships, coast artillery and certain small arms are useful for long periods of time. Airplanes, tanks, many kinds of guns and ammunition, if produced even five years before the war, would be obsolete. Such obsolescence is not purposeful; it stems from accelerated wartime research. For a private contractor to force obsolescence would be difficult, under strict military specifications; and also unnecessary, because the government's vast wartime requirements obviate the necessity artificially to stimulate demand. Contractors' lobbying, and a desire to create jobs, might induce military production *in peacetime*, but obsolescence, inability to predict war's beginning, and the danger of armament races, make a military backlog unwise as a counter-cyclical measure.

As a final example of non-purposeful obsolescence, let us examine houses and other buildings. Buildings tend to be replaced long before their physical lives have been exhausted. According to one authority:

The continual growth of the central business district of Chicago for a century has required successive crops of buildings on the same site to meet the demands of different or more intensive uses. Since 1830 at least six different structures have occupied the southeast corner of Washington and LaSalle Streets, each of which in turn was expected to endure for many years. There are probably few spots in the downtown district which have not been occupied by at least three, if not four, sets of buildings. Along LaSalle Street, where the replacement has occurred more frequently than on any other street, thirteen-story skyscrapers with a structural life of a century or more, have been torn down to give room for twenty-two or forty-four-story tower buildings.<sup>16</sup>

A study of demolitions on 936 residential sites in Philadelphia showed that "... over 90 per cent of the loss in family accommodations was of buildings that still had a long period of usefulness before them."<sup>17</sup> The same writer's study of demolitions in three other cities—Washington (D. C.), Portland (Ore.), and Oakland (Cal.)—revealed that: (1) the buildings succeeding the dwellings torn down were overwhelmingly commercial, industrial or public in character; (2) although buildings on adjoining lots might be much different in age, they would nevertheless frequently be torn down at the same time; and (3) the age distribution of buildings demolished and buildings in use was practically the same. His conclusion is that obsolescence rather than age was the controlling consideration.

<sup>16</sup> Homer Hoyt, *One Hundred Years of Land Values in Chicago*, p. 335.

<sup>17</sup> Frank J. Hallauer, "Population and Building Construction," *Journal of Land and Public Utility Economics*, Vol. X, 1934.

Such obsolescence stems from the search for more profitable land utilization; it is caused by *scarcity of choice locations* and is therefore basically different from the obsolescence of personalty. The owners of an obsolescent building are well-paid for the demolition (or they anticipate larger profits if they demolish their own building in order to erect a larger or better one); while the owners of obsolete durable consumers goods or of style goods find their value has shrunk or disappeared. Unlike a house standing on a lot coveted for a skyscraper or a public building, an obsolescent automobile or an old edition of a textbook or an out-of-style hat has no "nuisance value." The old does not have to be "bought out" to make room for the new, because it is not fixed to the land. Purposeful obsolescence seldom applies to buildings,<sup>18</sup> although it may affect permanent improvements such as kitchen and bathroom fixtures. Houses have a much smaller fashion element than business buildings (e.g. store fronts). Most people prefer traditional to modern architecture, and, in any case, traditional houses are seldom prematurely demolished in order to erect a more modern house. They are sold, and yield continued services to their new owners.

V

The foregoing discussion leads to several generalizations:

1. No man has an incentive to render his own possessions obsolete, for that would involve loss to him. Purposeful obsolescence affects goods *sold to others* and widely consumed, so that business can be gained by selling replacements. If a manufacturer suppresses his patents, it is to protect his existing capital investment, or to keep a new product off the market in order to sell the present one.<sup>19</sup>

<sup>18</sup> Structures torn down to make space for more profitable buildings are only partly "used up" physically. The reverse is true of slum houses: although their physical usefulness (space, light, sanitation, etc.) has long since been past, there is prolonged use of these obsolete buildings because they are profitable to the landlords and the slum dwellers—in their poverty and insecurity—have no alternative. Thus a building's economic life may be less than, or greater than, its useful (or reasonable) physical life.

<sup>19</sup> Suppression of new products is not purposeful obsolescence, but is a related phenomenon. A few examples will make this clear:

Fifteen years ago an "everlasting match" or "ignitable rod" was developed by Foldi & König in Budapest. *Newsweek*, April 15, 1946, pp. 75-6. The patents were held by the Swedish Match Company. Although this match was commercially successful in Holland and Switzerland, Diamond Match Company and other American members of the international match cartel decided not to acquire the patents and not to manufacture it. Berge, *op. cit.*, p. 191. Ordinary matches are highly perishable, necessitating frequent replacements. This results in a remarkable stability of sales and earnings in the match industry. See A. S. Dewing, *The Financial Policy of Corporations*, pp. 632-3, table showing net earnings of Diamond Match Company from 1900 to 1933. Purposeful obsolescence is involved, for Diamond could have sold the durable matches instead of the perishable ones, if it wished to.

To maintain the sale of electric power and the *replacement* sale of incandescent bulbs, both the utility companies and the bulb manufacturers have retarded the development of fluorescent lighting. To stimulate the sale of lithopone (used in paint), titanium pigment, which is superior and cheaper to produce, was arbitrarily priced 2 cents a pound above lithopone. Berge, *op. cit.*, pp. 44, 45, 140-1.

2. Purposeful obsolescence affects normally or potentially *durable* goods. The more durable the goods, the smaller is the normal ratio of replacements to the total stock, and the sooner the market becomes saturated in the absence of forced fashion or induced perishability.

3. The obsolescence of buildings is seldom purposeful; it stems from scarcity of choice locations and the search for more profitable land utilization.

4. Purposeful obsolescence is absent from an industry where specifications are strictly regulated by custom, tradition or statute (army and navy uniforms, men's evening clothes, ceremonial or ecclesiastical paraphernalia—imagine a blatant advertisement hawking the latest styles in such equipment!)

5. Nor does it affect small handcraft industry producing custom-built goods for a narrow market. But mass-production, requiring continuous output to reduce overhead unit costs, puts a premium on volume sales. Reluctant to cut prices, producers shorten durability, manipulate styles (and resort to instalment selling).

6. Industries lacking technological changes (briar pipes, watches, pencils, staple cooking utensils), and articles whose durability is a major selling appeal (aluminum pots, sewing machines, typewriters), seldom become obsolescent purposefully. In pioneering industries (automobiles and radios until about 1930, television, electronic devices, plastics) durability is no virtue and it would be unwise to make an instrument to last twenty years. Obsolescence from genuine innovation is not purposeful. The line is hard to draw, but the Model A Ford *was* a great improvement over the Model T, a television set *is* a different product from an ordinary radio, and the owners of these obsolete articles gain by buying the new ones. But with purposeful obsolescence, the "old" article loses value (at least psychologically) and the owner must then buy—or is induced to buy—the "new" or "latest style" model, which is seldom better than the old one and is sometimes worse.

7. In industries where its use is feasible, organized labor tends to favor purposeful obsolescence as a means of stimulating employment. There are, of course, notable exceptions: some unions take pride in sound workmanship and urge lower prices, better quality and informational advertising to stimulate sales. But many old-line unions view the matter narrowly (when they consider it at all), and either advocate or condone limited durability and style gyrations. The short-run view, the identification of labor interests with the destiny of a specific firm or industry, the emphasis on workers as producers to the neglect of their interest as consumers—these attitudes are not new: witness the A F of L's traditional advocacy of the protective tariff.

8. The influence of war on purposeful obsolescence is two-sided. War, with its insatiable demand for men and materials, creates a condition of universal scarcity and at the same time swells the purchasing power of large groups in

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Whenever patent control and manipulation of the price structure result in suppressing a better or more durable substitute, consumers are forced to continue using the inferior or less durable product on the market. This is the true relationship between purposeful obsolescence and suppression of patents.

society. Moreover, the heavy backlog of deferred demand tends to exceed the supply in the immediate postwar period. The resulting sellers' market, with no need to stimulate repeat sales, ought to minimize purposeful obsolescence during war and postwar years, but it doesn't, except for government restrictions. For war brings new ideas, breaks down old customs, and is an ally of rapid change. Even during a war, postwar style changes are planned and are hinted at in advertisements. Once the custom has been established, each firm considers frequent style changes necessary *as an advertising device* to maintain its market position. Indeed, more frequent fashion changes will prevail in the future because of the use of modern fabrics of great durability.<sup>20</sup>

Wartime shortages are most severe in durable goods, since these industries are largely converted to war production. By using up our stock of durable consumer goods, and foregoing additions and improvements, we divert our plants and skill primarily to war purposes. "It is not yet generally appreciated," says Professor Davis, "how important a cushion against the wartime restrictions since Pearl Harbor was provided by the heavy stocking up with durable and semidurable goods in the years 1938-41." But purposeful obsolescence depletes consumer reserves. By reducing durability and getting people in the *habit* of replacing durable goods, it intensifies wartime shortages—thereby delaying conversion to war production—and later fans the flames of postwar inflation.

In sum, purposeful obsolescence characterizes mass-production industries in which a more durable product is technically and commercially feasible, but in which heavy replacement sales volume—motivated partly by the existence of heavy fixed costs and by the vested interest of organized labor—is artificially stimulated by deliberate reductions in durability or deliberate style changes. This technique is only temporarily abandoned during war. It is rarely used where specifications are governed by custom, tradition or statute; nor is the obsolescence purposeful in the pioneering stage of industry.

Fundamentally, purposeful obsolescence means the absence of genuine competition. If there were many sellers of a fairly standardized commodity, sellers' rivalry would take the form of price cuts or improved quality or both. Producers would charge less for the same product, or would sell a better or more durable product for the same price, and all selling rivalry would be reducible to *price* competition. Most so-called "quality competition" is really brand or style rivalry, which stimulates sales without reducing prices and without improving the product. Brands and fashions do not change the product; they change the mind of the buyer. Emphasis on shifting styles is tied up with excessive product differentiation: an attempt to remove the product from comparative judgment and to create a specialty which will not have a host of imitators to share the profits of innovation. It is also related to oligopoly, for when sellers are few

<sup>20</sup> For example, nylon blended with cotton or various synthetics with wool. One manufacturer reports he has a textile which in a man's summer suit will wear ten to twelve years. Such durability will necessitate new models to stimulate sales. *Newsweek*, August 6, 1945, p. 14.

they fear that their rivals' retaliation will cause a price war; hence style rivalry replaces price-cutting. Induced perishability maintains sales volume by frequent replacements instead of by price reductions to stimulate sales to lower income groups. Thus purposeful obsolescence is employed to *avoid price competition*; it is a variant of monopolistic competition and oligopoly.

## VI

The significance of purposeful obsolescence is far reaching. It is intimately related to waste in production and consumption, to seasonality in production and excess plant capacity, to the business cycle, to advertising and the cycle of industrial development, to style and fashion changes, and through all of these it impinges directly on consumer welfare.

1. There is an incredible amount of waste in the American economy. From 1919 to 1935 the wastage of business, government and consumers' capital was about fourteen billion dollars annually; from 1919 to 1937, capital wastage was about four-fifths of gross business capital formation.<sup>21</sup> Much of this waste is caused by fires, floods, wear and tear, new inventions, etc. But some of it results from deliberate style and efficiency obsolescence.

Fashion changes waste labor, materials and equipment. A sudden style change may make expensive shoe lasts or dress patterns worthless. Frequent style rotation limits the output of each model; anticipated style changes require hand-to-mouth purchases of certain raw materials; this prevents optimum output and increases production costs. Because of uncertainty as to the popularity of the new style, or the length of time it will last, retailers must charge a higher price to protect against possible inventory losses from markdowns. In the shoe industry, to offset possible losses on style shoes, retailers often charge a higher price for staple shoes. The multiplicity of styles forces the manufacturer to produce and the retailer to stock a larger number of pairs; this requires more working capital. These burdens upon buyers and sellers of shoes result partly from legitimate public demand, partly from style propaganda.<sup>22</sup> If women's shoe styles changed no faster than men's, fewer shoes would be produced, using better materials and workmanship. The same is true of clothing, textiles, house furnishings, personal adornment. Even the motion-picture industry has suffered from wasteful fashion changes. By the time a picture is produced, the leading lady may be out of style.<sup>23</sup>

Induced perishability wastes labor, materials and equipment used in repairs and maintenance. With greater durability, a smaller volume could be produced, thus releasing economic resources for other uses. The quintessence of waste is the employment of labor upon short-lived materials. Not all inferior products

<sup>21</sup> Solomon Fabricant, *Capital Consumption and Adjustment*, pp. 170-1; Simon Kuznets, in *TNEC Hearings*, Part 9, "Savings and Investments," p. 4036.

<sup>22</sup> See Federal Trade Commission, *Report on Shoe and Leather Costs and Prices* (1921), pp. 137-144.

<sup>23</sup> In 1929 the motion picture industry asked both Molyneux and Lanvin to come to Hollywood and set the styles there, rather than in Paris. They declined, but Gabrielle Chanel accepted. The results were not successful. Crawford, *op. cit.*, p. 70.

are adulterated. A producer may *unavoidably* use poor materials and workmanship because better materials and technique are unknown in an immature industry. Or he may *deliberately* use shoddy materials and skimp on quantity. If his object is to cut costs, it is adulteration; if it is to make the product wear out fast, to stimulate repeat sales, it is induced perishability. Purposeful obsolescence is not synonymous with adulteration; the distinction is based on motive. In either case waste arises when current practice falls short of industrial potentialities, considering the state of the arts.

Conscious withholding of efficiency—the original economic sin—is the essence of monopoly. In a functional sense, monopoly has many facets: manufacturers' restriction of output; union restrictions on apprenticeship, membership or tools; cooperative or governmental acreage reduction programs, "plowing under," "orderly marketing";—all create artificial scarcity in order to raise wages or prices. Some of these policies may be justified as the only feasible alternative. But businessman, worker, and farmer are all cut from the same fabric. In an unstable economy every producer is in his heart a monopolist—as Adam Smith recognized—though many pay lip service to the ideal of competition. Restrictionism—of which purposeful obsolescence is one technique—was denounced by Veblen as industrial "sabotage." In *The Engineers and the Price System* he sharply distinguished the "engineer," whose aim is physical productivity, from the "businessman," who sometimes profits from inefficiency. The distinction is somewhat exaggerated, but in too many industries inefficiency and waste *are* profitable.

2. Fashion changes intensify the normal seasonal demand and, by forcing a peak load rather than a balanced load, they contribute to excess plant capacity. For example:

Suppose as a shoe manufacturer you have to make 9,000 pairs of shoes in a year to meet your market. The least wasteful way to make them is in a shop just big enough, and with just enough machines to turn out 30 pairs a day which, on the basis of 300 working days, will give the 9,000 pairs. But suppose your orders are for 3,000 pairs in February, for the spring trade, and for 3,000 pairs in August, for the fall trade, and that these orders are not given—due to style factors—until the first day of those months. To meet the order you must enlarge your shop to a capacity of 100 pairs a day. In February and August you are working furiously on a 100 pair a day basis. Thus you produce the 6,000 demanded. During the other ten months, your output averages hardly more than ten pairs a day. February and August are the 'peak load' months, and they determine the capacity of the shop. You must accordingly have over three times as large a shop, and three times as much machinery, to make 9,000 pairs of shoes on a *peak load* basis, as you would require on a *balanced load* basis of a steady 30 pairs a day.<sup>24</sup>

Fashion changes cause departmental congestion and bad routing of raw materials; they hinder advance planning of production; they force production in small lots, resulting in constant work interruptions and high unit costs. Sudden style changes—even reports of new styles—intensify production risk. If it takes, say, six months to produce style goods in quantity, production may be

<sup>24</sup> Stuart Chase, *op. cit.*, pp. 184–185.

delayed three months in order to guess the trend of the market, and then pushed feverishly in order to beat competitors to the fashion deadline. Seasonality in garment making intensifies seasonal unemployment, broken schedules, and waste in textile mills and in the production of accessories. Thus a single fashion change adversely affects a chain of related industries.

3. Purposeful obsolescence might be desirable if it stabilized production and employment in the business cycle (although not seasonally). The durable goods industries suffer more violent cyclical fluctuations than the less durable goods industries. In the case of durable *consumers* goods, a major reason is the postponability of replacement. Food and other perishables are used up quickly and must be replaced, even in the depths of depression. But automobiles, radios, refrigerators, fur coats, can be used for several years. When incomes fall during depression, many people simply stop buying these items; demand dwindles, production lags, unemployment spreads. Eventually these goods wear out and must be replaced. Economic recovery finds a large backlog of unfilled demand, production booms, and employment rises rapidly.

Now it could be argued that by reducing the durability of such goods, or by introducing frequent style changes, consumers would be induced to replace them, *even during depression*. This would cushion the fall of demand, production and employment in those industries and would later dampen their rise in recovery and prosperity. By *reducing the postponability of replacement*, purposeful obsolescence might help to smooth out the violent cyclical fluctuations which bedevil us periodically.

But in a larger sense the stabilizing influence of frequent replacements is illusory. For in depression, purchasing power is at a low ebb, and the need to replace some goods means that consumers have less money to spend on other goods, and these latter industries suffer from lack of demand. Purposeful obsolescence simply shifts the burden of depression from one set of industries to another; it does not truly iron out industrial fluctuations. On the contrary, the more durable consumers goods are, and the less frequently styles change, the better the lower- and middle-income groups can weather a depression, for if they do not have to replace some of their goods, they can devote their entire current income to the payment of rent and the purchase of goods, such as food, which are inevitably perishable. *If* purposeful obsolescence really smoothed out cyclical fluctuations we could sacrifice some efficiency to gain a modicum of stability. But many businessmen prefer stable *prices*, which are maintained by letting output fluctuate.

4. Most industries eventually go through three stages. First there is the *expansive* stage. From its birth to about 1910 the auto industry produced a novelty product and engaged in technical pioneering. From about 1910 to about 1930 a vast nationwide market was built by passing on the fruits of technical progress in the form of better cars and lower prices. Advertising appeals were largely informational. There was no need to incorporate trivial style changes, or to advertise such trivia, for practically every year witnessed genuine and substantial improvements. Producers did not need to rely on repeat sales; annual sales to new buyers exceeded the number of worn-out cars, and sales

campaigns yielded "increasing returns." Rival firms could share in the expanding *total* demand.

In the second or *retentive* stage—after about 1930 for the auto industry—the market is almost saturated. The lower-income groups own cars of some sort, mostly second-hand. Price reductions would increase *total* demand, but not to the same extent as in earlier years. Sales volume would decline if producers relied on new buyers, and so they emphasize repeat sales. But since cars are durable, they would wait a long time for customers unless present owners are tempted with new models. As the market approaches saturation (i.e., *commercial* maturity) the industry becomes *technically* mature. The era of revolutionary improvements is over. Annual changes are variations on an old theme. Now high-pressure advertising and salesmanship shift buyers' attention from price to brands and (real or fancied) quality. Declining price-consciousness reduces elasticity of demand. The oligopolistic nature of the industry makes each firm reluctant to cut prices, for fear of swift retaliation. Producers maintain stable and fairly uniform prices, and seek business by embellishing last year's model. Thus annual style changes come to dominate the industry.

In the absence of purposeful obsolescence (and in the absence of a rapidly growing population, an expanding export market, better income distribution, or drastic price reductions), annual sales would roughly equal the number of worn-out units (replacement sales in the physical sense), there would be excess plant capacity, and sales campaigns would yield "decreasing returns." Most mature industries—especially those producing durable consumer goods and style goods—are in this stage and therefore rely heavily on purposeful obsolescence. For example, the annual sale of (women's) shoes is mostly to replace shoes that are *not* worn out; sales volume does not depend on converting barbarians to the wearing of shoes.

In the third or *contractive* stage—not yet reached by the auto industry—we find a moribund industry (carriages, buggy whips, old-fashioned corsets, high-topped shoes, carpet sweepers, lace curtains, etc.) whose product is being replaced by a better or cheaper substitute, or is declining by virtue of a shift in public taste or habit. Annual sales are less than the number of worn-out units, but each firm tries to retain as large a share as possible of the *shrinking total demand*. Producers emphasize trivial brand differences, they resort to spectacular style changes, and embark on extensive advertising campaigns (e.g., "Congress gaiters" in the 1880s and 1890s), not to gain more profits but to minimize losses. Nobody gains from this. Like the Red Queen in *Through the Looking Glass*, each producer must run faster and faster in order to keep up with himself. If the producer of the old product also controls the new one, he may try to suppress it in order to maintain the sale of the former.

In short, purposeful obsolescence is not necessary in a pioneering industry serving a rapidly growing mass market created by advertising and facilitating mass-production and declining costs and prices. But when the market approaches saturation, firms resort to purposeful obsolescence to retain old customers and to entice new buyers away from rivals. Then skilled designers and wonderfully lyrical copywriters are engaged to force obsolescence. He who can

make the product wear out fast, or make it lose its appeal through style changes, is acclaimed with hosannahs of praise, while the sincere technician who aims at durability is scorned. And when a product is rendered moribund by a new invention or a shift in consumer tastes, the new product may be held off the market in order to keep the industrial dotard alive a bit longer. In a dynamic economy, purposeful obsolescence is a symptom of industrial maturity and a sign of approaching old age for certain industries.

5. It would be churlish of me to denounce style. A slow change in styles represents a true human want, for people weary of sameness. But "style" and "fashion" are not synonymous, although heretofore I have not seen fit to make the distinction. With reference to clothing, style is any distinctive mode of tailoring, while fashion is the style prevailing at any given time. A style evolves slowly and reflects the people's way of life; fashion is a chameleon, never in vogue long enough to reflect basic tastes and habits. Frequent fashion changes artificially shorten the period during which a style prevails. Fashions do not come from Heaven; they are seldom a response to free consumer choices, but are forced on the public simply to build up lagging sales. The demand for many products is not so much a matter of individual preference as of prevailing fashion, which connotes uniformity, not individuality. Like the jurymen in *Alice*, most consumers are bewildered by claims and counter-claims, and cannot agree whether an innovation is important or unimportant. Whence consumers fall easy prey to the quackery of the pseudo-scientific and the self-appointed fashion arbiters. Fashion is a monopoly element, closely related to buyer ignorance, and fostered by the lure of promised satisfactions more spurious than real.

Why do fashions change? On the producers' side is the factor of artificial stimulation. On the consumer side, inequality of purchasing power leads each economic class to imitate the foibles of the classes above it. This point was developed thoroughly and with ferocious satire by Veblen, in the *Theory of the Leisure Class*. Indeed, all purposeful obsolescence is related to inequality of income. For markets would not become saturated so soon, and there would be less incentive for forced fashion and induced perishability, if the poor had greater purchasing power. To cater to the rich, high styles are created; to sell to the poor, sleazy imitations are made. Except for working clothes, which are fairly functional, the poor, who can afford it least, suffer most from induced perishability and forced fashion; the rich, who can buy more durable goods and can afford to discard unfashionable goods, suffer least.

6. Purposeful obsolescence harms consumers *directly* by constantly making them replace prematurely worn-out goods and durable goods which are unfashionable. Displaced goods lose both exchange-value and use-value. Exchange-value falls as the market price of out-of-style or badly-worn goods falls. If the consumer continues to use the obsolescent article, he is not interested in its market (or "trade-in") value, but its use-value falls as it loses psychological appeal. Consumers suffer *indirectly* from the waste of economic resources occasioned by seasonal production, excess plant capacity, retooling, change of dies and patterns, and a host of other *production* wastes. It absorbs a large part of

the consumer's purchasing power simply to replace goods he already owns. And any consumer who, Diogenes-like, insisted on the elimination of all wasteful fashion changes and induced perishability, would be unable to supply his wants in the market.

If consumer goods were more durable and if styles changed less frequently, we *might* have a higher scale of living with a smaller physical output of industry. The fact that we buy goods more frequently (simply for replacement) does not guarantee an increase in satisfactions. "It is a serious blunder," says Professor Davis, "to confuse consumption expenditures with consumption. . . . Where consumers possess large stocks of durable and semi-durable goods, consumption expenditure may shrink . . . without affecting current consumption."

## VII

From the broad social point of view, purposeful obsolescence results in waste and inefficiency and it squanders our natural, human and man-made resources. Unlike a true innovation, it adds nothing to our material culture, to industrial progress, or to what the late Professor Cannan called "the heritage of improvement." Indeed, as Professor Ayres points out, the heritage of improvement is impeded by a "feudally-conditioned propensity to consume." Many businessmen fear market saturation, but *in the long run* capital and labor are not so immobile that a mature industry must be perennially stimulated by an artificially maintained market.<sup>25</sup> The old-fashioned captains of industry were not altruistic social servants, but they were often risktakers who made fortunes in pioneering industries, instead of expanding old industries beyond the point of market saturation. For all their ruthlessness, they contributed more to our material culture than does the latter-day gadgeteer.

Economics is the science of economizing, and economy is roughly synonymous with efficiency. Ultimately, goods are produced and consumed as a means to the fuller unfolding of human life, and their utility ought to consist in their efficiency as a means to this end. But the illogic of purposeful obsolescence emphasizes, not efficiency, but the honorific character of wasteful consumption. The people want bread and they are given a stone.<sup>26</sup> As long as a single Ameri-

<sup>25</sup> The notorious "make-work" fallacy, usually applied to luxuries and to protected industries, is based on two false assumptions: first, that money spent on certain goods would not be spent on anything else, and second, that workers employed in producing the goods of a mature industry could not produce anything else. Curtailment of expenditures on premature replacements would not necessarily throw men out of work, but would *eventually* shift them to other occupations.

<sup>26</sup> Perhaps the people want stones which are called "bread." The problems raised in this paper are caused by consumers as well as by producers. If consumers, individually and in groups, had more intelligence, education and knowledge, they would not be led astray so easily. The extent to which purposeful obsolescence is the fault of the consumer, and the manner in which it might be reduced or eliminated by consumer education or by legislation, is beyond the scope of this paper. Here the problem is treated from the viewpoint of the producer's policy as cause and the consumer's welfare, or lack of it, as effect. Many economic ills can be traced to consumer ignorance, inertia, greed, vanity, credulity, etc. But when we hear businessmen say they must adapt their production to irrational consumer behavior, we seem to hear Aesop's wolf complaining of the lamb.

can (or for that matter, foreign) family is ill-fed, ill-housed or ill-clothed, purposeful obsolescence is an antisocial policy, the tool of the timid, the weak, the unimaginative businessman. Its *complete* elimination would be possible only in what Tawney called a "functional" society, but even in an acquisitive society it can be reduced. Business ability, labor and capital investment are much needed, either directly, or indirectly through the public economy, in such relatively neglected fields as low-cost housing, medical services, educational and recreational facilities and, beyond that, there are incalculable selling opportunities abroad, if we will but free the international economy from the shackles which bind it. (Certain *industries* may be mature, but that is not the same thing as a mature *economy*.) We need more businessmen who—scorning shoddiness and style gyrations—will emphasize technical efficiency, low costs, and ever lower prices of the material goods of life, so that even the poorest among us may enjoy them. Such businessmen are the darlings of the economic system and the only true "entrepreneurs" of the modern world.

The philosophical implications of purposeful obsolescence can only be hinted at here. In the folklore of American production and consumption, goods are invested with subjective qualities which they seldom possess. For "value dwells not in particular will: it holds his estimate and dignity as well wherein 'tis precious of itself as in the prizer." Our advertising pseudo-culture has begot a dependence on all manner of goods for happiness, social worth, adjustment to the problems of living. Many sales appeals make invidious use of honorific and derogatory terms such as "latest style" and "outdated"; they run counter to economic morality when they glibly assure us that a certain brand or fashion will solve all our personality problems. The hot pursuit of goods does have a demoralizing effect, but let us not fall into the common error of Carlyle, Ruskin, and Morris, that the pursuit of material comforts must be at the expense of "higher" or spiritual values. This is nonsense. Unless we are to adopt a purely ascetic view of life, it will always be in the best humane tradition to seek economic welfare, the elimination of waste, the abolition of poverty. As long as the basic and objectively measurable needs of large groups of people are not met, it is an economic perversion to create obsolescence. This paper is no jeremiad against "materialism." We need more and more goods, but in countless advertisements business teasingly dangles the bright baubles of the future before the eyes of people who lack the goods of today. The poor, like Moses, see the Promised Land, but do not enter. A full appraisal of purposeful obsolescence must utilize ethical standards, for it is neither possible nor desirable to divorce economics from ethical or non-economic values. The only danger is that we may go too far in our prescriptions for the welfare of others, and begin to dream of utopia. As Aldous Huxley puts it: "Happiness is a hard master—particularly other people's happiness."