



A Pilot Study on Sustainable Development of Design in the Context of “Creativity Obsolescence” and “Timeless Classic”

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Abstract. “Creativity obsolescence” means “once possessed”, and the “timeless classics” are “worldly and durable”. To answer the above questions, it is necessary to explore a strategy called planted obsolescence, which still plays a huge role today. Planned obsolescence is an approach used by manufacturers to take advantage of market demand. Production and consumption are two sides of the same coin. As a pilot study, this article first sorts out the ins and outs of planned obsolescence, and then combines previous research around classical, timeless design to roughly determine the research direction. According to the philosophies and currents of thought of the East and the West, the evaluation criteria are constructed. In the follow-up study, we selected suitable samples as stimuli according to the above evaluation criteria, and learned about the public’s attitude through questionnaires. It’s not to propose a new design approach to reduce the impact of planned obsolescence, but to use the philosophy of the Chinese sages to explain the purpose of “compliance with human nature”.

Keywords: Creativity obsolescence · Timeless classics · Sustainable development · Planned obsolescence

1 Introduction

Design has profoundly changed the way we live, but do we really need so much design? The product line is constantly updated, and those products that are obsolete can still play a big role. For a long time, a concept known as “Planned Obsolescence” has played a powerful role. The emergence of planned obsolescence has had a great impact on product development, design, and marketing. Certainly, there are some unscrupulous manufacturers who produce poor-quality products. However, the reason that most products are not as durable as they used to be is due to planned obsolescence. In addition, the curiosity of human beings regarding new things and the desire to possess them helps to drive planned obsolescence.

This study suggests that planned obsolescence may be difficult to eradicate completely. Its impact on product manufacturing, design, and consumption will only intensify in the future. This stems from various problems, such as excessive consumption of resources, constant destruction of the ecological environment, and a distortion of the relationship between people and products. It will be difficult to reverse these adverse effects simply by relying on moral constraints. Although many scholars, consumers, and producers have studied the concepts of design ethics, green design, and sustainable development, it is no easy task to fundamentally change the negative influence of planned obsolescence.

As a pilot study, this article will restore the appearance of planned obsolescence as comprehensively as possible, and then analyze the classic and excellent designs in history as the basis for follow-up research.

2 Literature Review

2.1 Planned Obsolescence: An Imperceptibly Influence

The concept of planned obsolescence was developed based on the “Phoebus cartel” [1–3] in the European light bulb industry in the 1920s and the “Annual Model Change” proposed by General Motors (GM) [4–6] in the US at the same time. It finally took shape in the mid-1950s, and its influence continues to this day. Planned obsolescence is a production method used by manufacturers to meet market demand. It has been witnessed that production and consumption are two sides of the same coin: human needs and desires have always existed in the development of human society, and this, in combination with the commercial industry’s need for profit, constitutes the main reason for the emergence of this system. The advancement of science and technology and the demands of human nature prompted the advent of the era of consumerism, leading to the adjustment of production following market demand.

Human needs are a process of continuous progression from low to high, and it is usually impossible to skip a level of need [7–9]. This has become one of the motivations for planned obsolescence. In addition, many studies have proposed further views based on Maslow’s hierarchy of needs. These views also help us to better understand how planned obsolescence affects the various needs of consumers in a step-by-step manner [10–18]. People’s consumption activities may just be impulsive behavior that occur on a whim. Consumption or purchase involves a very complicated decision-making process. People’s consumption behaviors are very different. People hope to show their personalities and tastes and want to satisfy their desires through the products they own. Between seeing and purchasing is the desire of the inner world. Most of this desire will satisfy one’s self-realization or even self-transcendence needs.

If everyone chose to repair products or to continue to use existing products in other ways instead of buying new ones, a nightmare would undoubtedly occur for manufacturing companies. Generally speaking, companies are unwilling to let consumers know that their products can continue to be used with simple repairs. The increasing desire of human beings for products, and the perception of products as a symbol of personal status and a tool for self-realization, coupled with the needs of various commercial interest groups, have become the two major causes and motivations for planned obsolescence.

In short, planned obsolescence and its relationship with consumption, market and production is shown in Fig. 1. This helps us to understand its nature more fully and to evaluate it objectively.

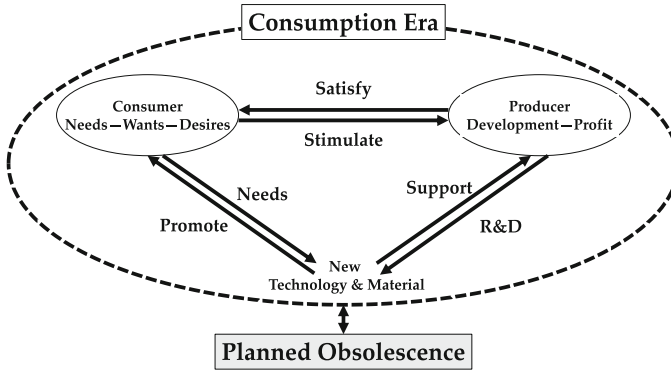


Fig. 1. Planned obsolescence and its relationship with consumption, market, and production.

2.2 Classic and Timeless Design: Inspiration from Eternity

The author has used classic designs as stimuli in the past to quantify audience perceptions. The study was divided into 2 separate sessions. In fact, in the process of conducting this research, we are thinking about why designs that were born a hundred years ago still have a strong charm. The first study focused on the Bauhaus, and the second study was conducted in terms of two lists about “100 Best-designed Products of the Modern Era”.

The findings of these studies are as follows, and they provide important inspiration for this paper.

1. The continual influence of the Bauhaus classic design does exist in the contemporary design. Upon the research result, an in-depth discussion could be considered in the convergence of Bauhaus three claims and contemporary design thinking.
2. The core of the “good design” principles, continues the functionalism established during the Bauhaus period, but it needs to be continuously revised and improved over time. Audiences with backgrounds in design and other art fields, their knowledge, and acceptance of these principles are higher than others. While designers and manufacturers follow these principles, they should make timely adjustments based on feedback from the public. For any criteria for “good designs, there is no best, only the most appropriate.

We believe that the charm of classic design is so fascinating, in addition to its own advantages (such as good function and shape), may be related to the lack of refinement of current objects. And this is also related to the planned obsolescence.

3 Evaluation Criteria: The Collision of Philosophies or Ideas of the East and the West

As mentioned earlier, the emergence and development of “Planned Obsolescence” is a complex process, while the design object is its physical presentation. Therefore, we believe that in addition to understanding the reasons why those classic designs have a long history, we also need to go back to the philosophical level of thinking. Therefore, the concept of “the compatible of Righteousness and Benefit”, which originated from traditional Chinese philosophy, and the concept of “Sustainable Development” entered the author’s field of vision. After discussion by the FGI, it was determined to be used as the evaluation framework for this study.

3.1 The Compatibility of Righteousness and Benefit

The issue of “righteousness and benefit” has been a constant discussion topic in the history of Chinese thought. It refers to the value judgments people adopt based on morality and interest in the process of economic activity (see Table 1).

The pursuit of interest generally starts from the perspective of the individual, so “benefit” refers exclusively to “private benefit”, while the object of morality has often been considered in terms of society as a whole. The meaning of the discrimination between righteousness and benefit can be thought of in broad and narrow senses. This article refers to the narrow sense group.

Table 1. Contrasting characteristics of righteousness and benefit.

	Attribute category	Representation	Objective orientation	Benefit characteristics	Demand	Wiggle Room	Performance under external influences
Righteousness	Social attribute	Civilization	Groups	Inclusive	Elastic	Big	Fragile/changeable
Benefit	Biological attribute	Instinct	Individuals	Exclusive	Rigid	Small	Strong/resilient

Source: [19]

Yan and Zheng [19] also summarized the definition and connotations of “Righteousness” and “Benefit”.

1. Righteousness. In ancient China, righteousness was equivalent to rituals. It was not until the Eastern Han Dynasty (25–220 AD) that the meaning of righteousness developed into “fit and agreeable”. Departing from phrases such as “fit for the time, agreeable to the masses”, righteousness evolved gradually into “justice and kindness”, and was then recognized as a core moral value of the Chinese nation. It is evidenced in an extract from the *Huainanzi* (The *Huainanzi* is an ancient Chinese book. It blends Daoist, Confucianist and Legalist concepts, including theories such as Yin-Yang and the Five Phases.): “the person who is “Righteousness” offers alms to others” [20].

2. **Benefit.** The original inscription of benefit in oracle bone script resembles a picture of a sickle reaping a mature crop. As food is the first necessity of people, it is natural that this character gradually evolves into the meaning of “gaining” [21]. Before the Spring and Autumn and Warring States periods, benefit was mainly interpreted as “luck” or “an auspicious sign”, while afterwards it evolved to contain two layers of meaning: first, monetary gain in the economic sense, and secondly the pursuit of certain values such as Benefits and Accomplishments, corresponding more closely to the ethical norms associated with the concept of righteousness.

Prof. Yeh used a new framework to position the distinction between justice and profit in Mencius’ political thought. He constructed four kinds of ideal-type (see Table 2) [22]. Comparing the arguments of ancestors in different eras, it is clear that it is no easy task to achieve the ideal state of balancing public and private and achieving unity between justice and interests.

Table 2. Four kinds of ideal-type.

Type	Introduction
Righteousness against Benefit (Replacement Pattern)	This principle emphasizes the irreconcilable conflict between justice and benefit. The nature of this principle is that either the choice of the end value or the method of thinking belongs to instrumental rationality leads to a binary opposition that leaves little room for compromise between justice and benefit. This principle requires decisions or actions to be based entirely on motivation or intention, but not on rational calculations and the assessment of opportunity and risks on an outcome level
Righteousness before Benefit (Conditional Pattern)	The nature of this principle is to maintain the binary opposition between justice and benefit. However, the principle emphasized that the two are not in a substitutional and opposite relationship of “either this or that”, but only a kind of value priority
Righteousness qua Public Benefit (Reductive Pattern)	The nature of this principle is to break the binary opposition between justice and benefit, emphasizing that the two are not opposite nor prior to each other. Instead, they are a large part of the conceptual or substantial intersection, equivalent, or similarity. Therefore, they can be mutually reduced, transformed, or fused to a certain degree or form; their respective words or implications can be interpreted or explained
Righteousness derives Benefit (Causal Pattern)	This principle emphasizes the benefit that can be derived from justice. Such a benefit can be self, others, or public

Source: [22]

3.2 Circular Design: From Cultural Thinking to Sustainable Development

With the increase in the level of life needs, the consumer market has entered an era of emphasizing experience and aesthetics. Design is no longer just the pursuit of product functions and beautiful shapes. It is also dedicated to the inheritance and maintenance of culture. It is the creation of lifestyles and life tastes, experiences, and the practice of life value.

For consumers, if a design (or product) has no distinctive features and lacks cultural connotation, it can easily be regarded as a cold and unindividual thing. For users, despite using the functions a product provides, it is useless and meaningless to them. When the product's functions are exhausted, people will naturally abandon it. Therefore, people cherish it because they paid for it, but it is difficult to cherish it for a long period of time. If a design is so admirable that it can bring convenience and comfort on a spiritual level, users will definitely cherish it, and perhaps they will not easily eliminate the product due to changes in its form.

In addition to the design model formed by the user's more subjective needs, the emergence and improvement of the concept of sustainable development also provides us with more objective, comprehensive, and systematic guidance. The United Nations has set two global development goals, the Millennium Development Goals (MDGs) [23], proposed in 2000, and the Sustainable Development Goals (SDGs) [24] resulting from further updates at the end of 2015.

The most common problem with the planned obsolescence is that it causes excessive consumption of resources, unnecessary waste, but also produces a large amount of waste. At the same time, people in the process of dealing with these wastes, due to various reasons, cannot be disposed of in accordance with the norms, and thus, they cause irreparable, even irreversible, damage to the environment. It is true that we cannot put all the problems facing mankind today, such as ecological pollution, excessive consumption of resources, and climate warming, into design. However, the causes of these problems are more or less design-related because a material or a certain manufacturing step in the design has been chosen or because products have not been designed with good efficiency in mind and it has not been considered whether they could be recycled, reused, or easily repaired [25].

The concept of circular economy has attracted more and more attention from the scientific and policy-making communities. Some scholars and practitioners regard it as a new thing, but, in fact, it was built on the legacy of predecessors. It includes concepts such as waste recycling and separation, industrial ecology, eco-industrial parks, and industrial symbiosis. Various concepts (such as 3R, 4R) can be traced back to the 1980s. At present, the concept of sustainable design has expanded to a richer aspect: it can be called "Circular Economy" (R0-R9) (See Fig. 2).

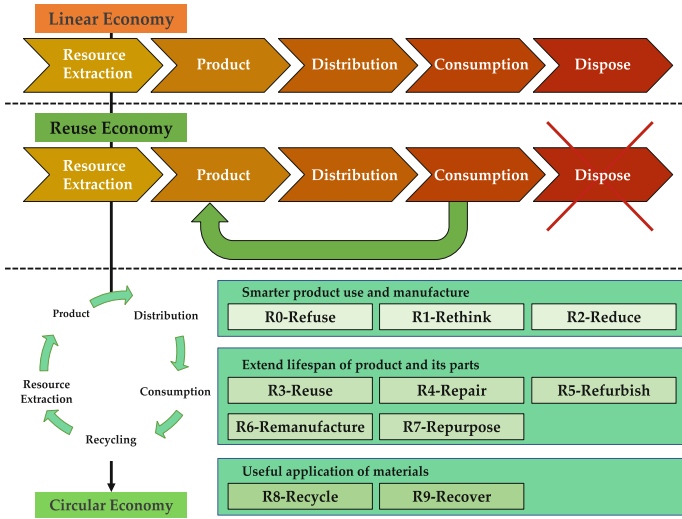


Fig. 2. From “Linear Economy”, “Reuse Economy” to “Circular Economy”.

3.3 Summary

The importance of designers as a communication bridge between producers and consumers is self-evident. The designer must not only have insight into the needs of consumers but must also meet the requirements of the producers and then use design to meet these needs. Based on literature review and FGI, this paper proposes a criterion for evaluating “Planned Obsolescence” (see Fig. 3), sixteen idioms have been selected as the criteria for assessment.

The meaning of these idioms has been explained separately below:

- P1—Being duty-bound: cannot shift one’s responsibility onto others.
- P2—Valuing justice above wealth: to think highly of justice and virtue and look down on material possessions.
- P3—Upholding justice and disdaining benefit: to advocate morality and look down on personal gain.
- P4—Being careless of wealth but conscious of virtue: to be loyal and use one’s own wealth to help others.
- D1—Taking justice to be of benefit: to regard justice and virtue as profit.
- D2—Responsibility comes before benefit: to perform duties and obligations actively and be patient when sharing interests.
- D3—Making light of wealth and considering love to be righteous: to prize righteousness and benevolence above wealth.
- D4—Thinking of righteousness on seeing gain: justice calls to mind when seeing profits.
- C1—Cherishing one’s blessings and possessions: to love and cherish all things.
- C2—Showing empathy: to imagine how others feel in the same situation.
- C3—Being selfless: to consider others’ interests before one’s own.
- C4—Gaining both justice and benefit: both justice and interest are obtained.

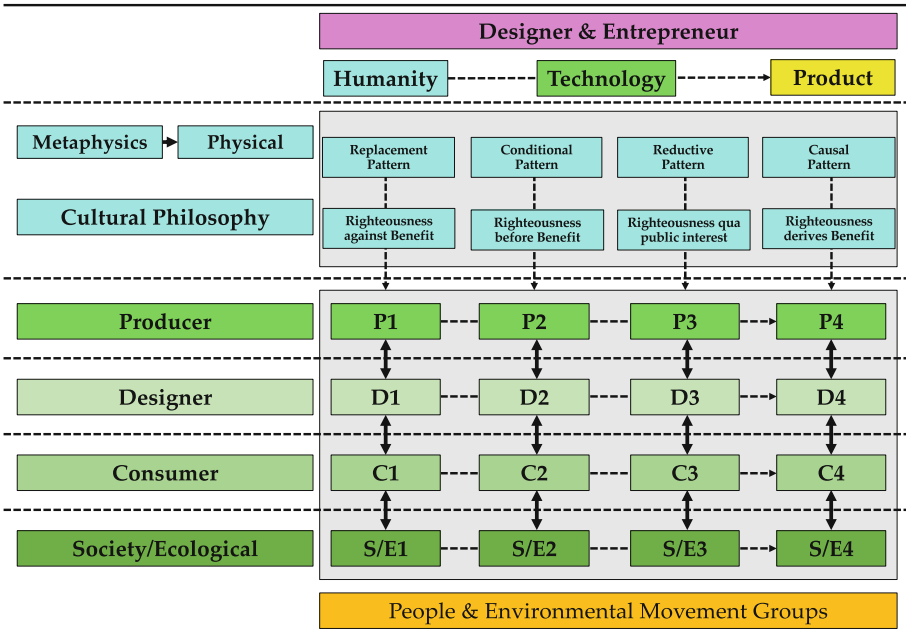


Fig. 3. Evaluation criteria.

S/E1—Taking the interests of the whole into account: to consider the whole situation or the whole picture in everything you do.

S/E2—Using righteousness to restrict profit: to control private interest using righteousness and mortality.

S/E3—Being moderate in taking and giving: to be self-control in obtaining and giving.

S/E4—Gradual improvement: to proceed or improve steadily based on specific steps or processes.

4 Conclusion and Follow-Up Research

Producers, designers, and consumers all have their own professional ethics and values as well as different cognitive models. In the eyes of producers and designers, the desire of consumers for various products is seen as a potential business opportunity and money cow. No savvy businessman or imaginative designer will fill this “niche”. Turning a blind eye to this issue means that it is easy to be surpassed by competitors. The use of the term “savvy” here is not entirely derogatory. The merchant’s pursuit of profit is understandable as long as they adopt conventional and proper methods, that is, they truly achieve a balance between righteousness and profit. The author believes that, while expanding the market, business should not only see the immediate benefits but should also consider the adverse effects of their products on resources, the environment, and consumers. In addition, it should be pointed out that producers and designers are also consumers to some extent.

Therefore, to construct a virtuous and moderate “production—design—consumption” cycle. The communication needs to be strengthened, and this can develop in a modest, moderate, and materialized direction. The interests of producers and consumers are not only material or spiritual. Putting aside the identity labels “producer” and “consumer”, we all live in the same world, and the environment is a common source of wealth for everyone that can be regarded as a “public benefit”. Conversely, the “profit” of producers and consumers is a kind of “individual benefit”. The balance of righteousness in this benefit-making process as much as possible is the appropriate core guiding principle for us to use in correcting the deficiencies of planned obsolescence (see Fig. 4).

In the follow-up study, we selected suitable samples as stimuli according to the above evaluation criteria, and learned about the public’s attitude through questionnaires. In order to conduct more objective research, the selection of stimulants and the design of problems will be the focus of the next stage of research. It’s not to propose a new design approach to reduce the impact of planned obsolescence, but to use the philosophy of the Chinese sages to explain the purpose of “compliance with human nature”.

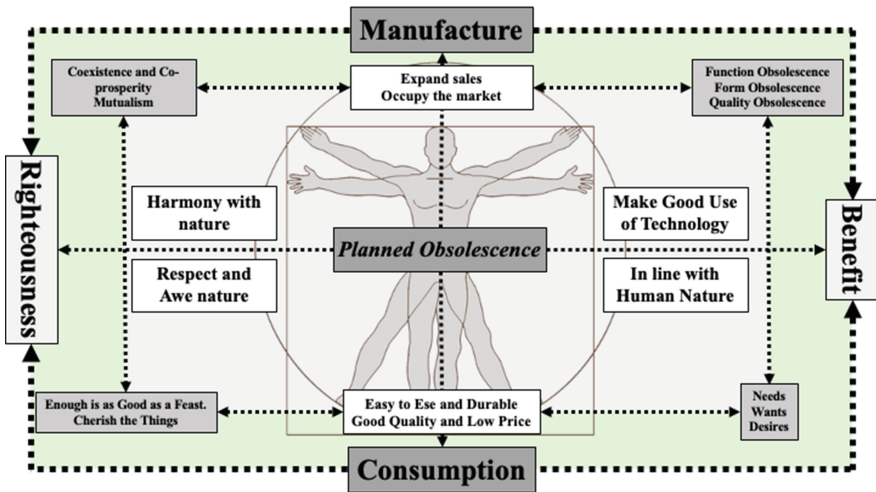


Fig. 4. Harmony between cultural industry and sustainable development: the development model of planned obsolescence from the perspective of “the compatible of righteousness and benefit”.

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