

www.jccbs.com.cn

免费课件下载

工业设计专业英语

王婧菁 主编

*INDUSTRIAL
DESIGN
ENGLISH*

中国建材工业出版社

工业设计专业英语

Industrial Design English

王婧菁 主编

中国建材工业出版社

图书在版编目 (CIP) 数据

工业设计专业英语/王婧菁主编. —北京: 中国
建材工业出版社, 2014. 9

ISBN 978-7- 5160-0931-4

I. ①工… II. ①王… III. ①工业设计-英语-教材
IV. ①H31

中国版本图书馆 CIP 数据核字 (2014) 第 179288 号

内 容 简 介

本教材为工业设计专业本科教材, 全书共分为 3 部分 15 课, 教材内容涵盖了平面设计、产品造型、人机工程学、设计发展史等工业设计专业的相关文献, 文章大多来自于国外主要设计媒体和设计专业著作, 内容具有较强的时效性和知识性。通过学习, 读者能够掌握工业设计专业文献的一般篇章结构及遣词造句的习惯用法, 在提高专业英语能力的同时, 也可了解到近年来国际工业设计的新成果和新动向。

本教材可作为工业设计等设计类相关专业的本科教材, 也可供相关专业的教师和科研人员参考使用。该教材有配套课件, 读者可登陆我社网站免费下载。

工业设计专业英语

王婧菁 主编

出版发行: 中国建材工业出版社

地 址: 北京市海淀区三里河路 1 号

邮 编: 100044

经 销: 全国各地新华书店

印 刷: 北京雁林吉兆印刷有限公司

开 本: 787mm×1092mm 1/16

印 张: 8

字 数: 196 千字

版 次: 2014 年 9 月第 1 版

印 次: 2014 年 9 月第 1 次

定 价: 36.80 元

本社网址: www.jccbs.com.cn 微信公众号: zgjcgycbs

本书如出现印装质量问题, 由我社发行部负责调换。联系电话: (010)88386906

前 言

《工业设计专业英语》是面向工业设计专业本科学生的专业教材。通过对本教材内容的学习，学生能够掌握工业设计专业文献的一般篇章结构、遣词造句的惯例，精确、迅速理解专业文献。

本教材内容涵盖了平面设计、产品造型、人机工程学、设计发展史等工业设计专业的相关文献，文章大多来自于国外主要设计媒体和设计专业著作，内容具有较强的时效性和知识性。全书共分为3部分15课，每课由Part I (Text)、Part II (New Words)、Part III (Phrases and Expressions)、Part IV (Exercises) 和 Part V (Free Reading) 组成，其中第1~5课为设计理论部分，主要介绍一些设计流派和设计观点；第6~11课为设计实践部分，主要介绍设计相关方面如色彩、手工艺等；第12~15课为设计史论部分，将设计史论按照年代分为几个章节。

此外，附录中还包括了一些工业设计专业英语词汇。通过学习这些课文，读者在提高自己的专业英语能力和水平的同时，也可以了解到近年来国际工业设计的新成果和新动向，有助于在后续课程的学习中将专业知识与设计观念结合起来。

编 者

2014.9



中国建材工业出版社

China Building Materials Press

我们提供

图书出版、图书广告宣传、企业/个人定向出版、设计业务、企业内刊等外包、代选代购图书、团体用书、会议、培训，其他深度合作等优质高效服务。

编辑部

010-88386119

宣传推广

010-68361706

出版咨询

010-68343948

图书销售

010-88386906

设计业务

010-68343948

邮箱：jccbs-zbs@163.com

网址：www.jccbs.com.cn

发展出版传媒 服务经济建设

传播科技进步 满足社会需求

(版权专有，盗版必究。未经出版者预先书面许可，不得以任何方式复制或抄袭本书的任何部分。举报电话：010-68343948)

目 录

Chapter one Design Theory

Lesson 1 Design for the Real World	3
Part I Text	3
Part II New Words	5
Part III Phrases and Expressions	6
Part IV Exercises	6
Part V Free Reading	6
Lesson 2 The Designer's Place in Industry	13
Part I Text	13
Part II New Words	14
Part III Phrases and Expressions	15
Part IV Exercises	15
Part V Free Reading	15
Lesson 3 Machinery, the New Messiah	18
Part I Text	18
Part II New Words	19
Part III Phrases and Expressions	20
Part IV Exercises	20
Part V Free Reading	20
Lesson 4 What Is Modern Design (1)	23
Part I Text	23
Part II New Words	25
Part III Phrases and Expressions	26
Part IV Exercises	26
Part V Free Reading	26
Lesson 5 What Is Modern Design (2)	30
Part I Text	30
Part II New Words	32
Part III Phrases and Expressions	32
Part IV Exercises	33
Part V Free Reading	33

Chapter Two Design Practice

Lesson 6	The Will to Style	39
Part I	Text	39
Part II	New Words	41
Part III	Phrases and Expressions	41
Part IV	Exercises	42
Part V	Free Reading	42
Lesson 7	What Color Is Design	45
Part I	Text	45
Part II	New Words	47
Part III	Phrases and Expressions	48
Part IV	Exercises	48
Part V	Free Reading	48
Lesson 8	Global Products	52
Part I	Text	52
Part II	New Words	54
Part III	Phrases and Expressions	54
Part IV	Exercises	54
Part V	Free Reading	55
Lesson 9	Time for a Change: Design in the Post-Disciplinary Era	58
Part I	Text	58
Part II	New Words	59
Part III	Phrases and Expressions	60
Part IV	Exercises	60
Part V	Free Reading	60
Lesson 10	The Art and Craft of the Machine (1)	65
Part I	Text	65
Part II	New Words	67
Part III	Phrases and Expressions	68
Part IV	Exercises	68
Part V	Free Reading	68
Lesson 11	The Art and Craft of the Machine (2)	74
Part I	Text	74
Part II	New Words	77
Part III	Phrases and Expressions	77
Part IV	Exercises	78
Part V	Free Reading	78

Chapter Three Design History

Lesson 12	The History of Industrial Design (1900s—1910s)	85
Part I	Text	85
Part II	New Words	87
Part III	Phrases and Expressions	87
Part IV	Exercises	87
Part V	Free Reading	88
Lesson 13	The History of Industrial Design (1920s—1930s)	93
Part I	Text	93
Part II	New Words	95
Part III	Phrases and Expressions	95
Part IV	Exercises	96
Part V	Free Reading	96
Lesson 14	The History of Industrial Design (1940s—1950s)	101
Part I	Text	101
Part II	New Words	103
Part III	Phrases and Expressions	103
Part IV	Exercises	104
Part V	Free Reading	104
Lesson 15	The History of Industrial Design (1960s—1970s)	108
Part I	Text	108
Part II	New Words	110
Part III	Exercises	111
Part IV	Free Reading	111
附录	工业设计专业英语词汇	116
参考文献		118

Chapter one Design Theory

Lesson 1 Design for the Real World

Part I Text

There are professions more harmful than industrial design, but only a very few of them. And possibly only one profession is phonier. Advertising design, in persuading people to buy things they don't need, with money they don't have, in order to impress others who don't care, is probably the phoniest field in existence today. Industrial design, by concocting the tawdry idiocies hawked by advertisers, comes a close second. Never before in history have grown men sat down and seriously designed electric hairbrushes, rhinestone-covered files boxes, and mink carpeting for bathrooms, and then drawn up elaborate plans to make and sell these gadgets to millions of people. Before (in the "good old days"), if a person liked killing people, he had to become a general, purchase a coal mine, or else study nuclear physics. Today, industrial design has put murder on a mass production basis. By designing criminally unsafe automobiles that kill or maim nearly one million people around the world each year, by creating whole new species of permanent garbage to clutter up the landscape, and by choosing materials and processes that pollute the air we breathe, designers have become a dangerous breed. And the skills needed in these activities are taught carefully to young people.

In an age of mass production when everything must be planned and designed, design has become the most powerful tool with which man shapes his tools and environments (by extension, society and himself). This demands high social and moral responsibility from the designer. It also demands greater understanding of the people by those who practice design and more insight into the design process by the public. Not a single volume on the responsibility of the designer, no book on design that considers the public in this way, has ever been published anywhere.

In February of 1968, Fortune magazine published an article that foretold the end of the industrial design profession. Predictably, designers reacted with scorn and alarm. But I feel that the main arguments of the Fortune article are valid. It is about time that industrial design, as we have come to know it, should cease to exist. As long as design concerns itself with confecting trivial "toys for adults," killing machines with gleaming tailfins, and "sexed-up" shrouds for typewriters, toasters, telephones, and computers, it has lost all reason to exist.

Design must be an innovative, highly creative, cross-disciplinary tool responsive to the true needs of men. It must be more research-oriented, and we must stop defiling the earth itself with poorly-designed objects and structures.

[...]

Looking at the books on design in seven languages, covering the walls of my home, I realized that the one book I wanted to read and most wanted to hand to my fellow students and designers, was missing. Because our society makes it crucial for designers to understand clearly the social, economic, and political background of what they do, my problem was not just one of personal frustration. So I decided to write the kind of book that I'd like to read.

This book is written from the viewpoint that there is something basically wrong with the whole concept of patents and copyrights. If I design a toy that provides therapeutic exercise for handicapped children, then I think it is unjust to delay the release of the design by a year and a half, going through a patent application. I feel that ideas are plentiful and cheap, and it is wrong to make money off the needs of others. I have been very lucky in persuading many of my students to accept this view. Much of what you will find as design examples throughout this book has never been patented. In fact, quite the opposite strategy prevails: in many cases, students and I have made measured drawings of, say, a play environment for blind children, written a description of how to build it simply, and then mimeographed drawings and all. If any agency, anywhere, will write in, my students will send them all the instructions free of charge. I try to do the same myself. [...]

[...]

In an environment that is screwed up visually, physically, and chemically, the best and simplest thing that architects, industrial designers, planners, etc., could do for humanity would be to stop working entirely. In all pollution, designers are implicated at least partially. But in this book I take a more affirmative view: It seems to me that we can go beyond not working at all, and work positively. Design can and must become a way in which young people can participate in changing society.

Ever since the German Bauhaus first published its fourteen slender volumes around 1924, most books have merely repeated the methods evolved there or added frills to them. A philosophy more than half a century old is out of place in a field that must be as forward-looking as this.

As society and morally involved designers, we must address ourselves to the needs of a world with its back to the wall while the hands on the clock point perpetually to one minute before twelve.

[...]

All men are designers. All that we do, almost all the time, is design, for design is basic to all human activity. The planning and patterning of any act towards a desired, foreseeable end constitutes the design process. Any attempt to separate design, to make it a thing-by-itself, works counter to the inherent value of design as the primary underlying matrix of life. Design is composing an epic poem, executing a mural, painting a masterpiece, writing a concerto. But design is also cleaning and reorganizing a desk drawer, pulling an impacted tooth, baking an apple pie, choosing sides for a back-lot baseball game, and educating a

child.

Design is the conscious effort to impose meaningful order.

[...]

The mode of action by which a design fulfills its purpose is its function.

“Form follows function,” Louis Sullivan’s battle cry of the 1880’s and 1890’s, was followed by Frank Lloyd Wright’s “Form and function are one.” But semantically, all the statements from Horatio Greenough to the German Bauhaus are meaningless. The concept that what works well will of necessity look well, has been the lame excuse for all the sterile, operating-room-like furniture and implements of the twenties and thirties. A dining table of the period might have a top, well-proportioned in glistening white marble, the legs carefully nurtured for maximum strength with minimum materials in gleaming stainless steel. And the first reaction on encountering such a table is to lie down on it and have your appendix extracted. Nothing about the table says: “Dine off me.” The International Style and the new Objectivity have let us down rather badly in terms of human value. Le Corbusier’s house as the machine for living in and the packing crate houses evolved in the Dutch De Stijl movements reflect a perversion of aesthetics and utility.

[...]

Excerpted from Victor Papanek, *Design for the Real World: Human Ecology and Social Change* (New York: Bantam Books, 1971): 14~16, 18~19, 23, 25~26.

Part II New Words

1. phonier *adj.* 假的, 欺骗的 (phony 的变形)
2. tawdry *adj.* 非常华丽的; 廉价而俗丽的 *n.* 俗丽的东西; 廉价而俗丽之物
3. gadget *n.* 小玩意; 小器具; 小配件; 诡计
4. volume *n.* 量; 体积; 卷; 音量; 大量; 册 *adj.* 大量的 *vi.* 成团卷起
5. scorn *n.* 轻蔑; 嘲笑; 藐视的对象 *vt.* 轻蔑; 藐视; 不屑做
6. patents *n.* 专利权; 执照; 专利品 *vt.* 授予专利; 取得.....的专利权
7. handicap *n.* 障碍; 残障; 不利条件, 不利的因素 *vt.* 妨碍, 阻碍; 使不利
8. humanity *n.* 人类; 人道; 仁慈; 人文学科
9. slender *adj.* 细长的; 苗条的; 微薄的
10. evolved *n.* 进化了的 *v.* 使逐步形成 (evolve 的过去分词)
11. matrix [数] 矩阵; 模型; [生物][地质] 基质; 母体; 子宫; [地质] 脉石
12. epic *adj.* 史诗的, 叙事诗的 *n.* 史诗; 叙事诗; 史诗般的作品
13. semantically *adv.* 语义地
14. lame *adj.* 跛足的; 僵痛的; 不完全的; 无说服力的; 差劲的, 蹩脚的
15. sterile *adj.* 不育的; 无菌的; 贫瘠的; 不毛的; 枯燥乏味的

Part III Phrases and Expressions

1. never before 从来没有；未曾发生；破天荒；前所未有
Never before had he felt himself so powerfully attracted to the idea.
他从没有像现在这样热衷于这个想法。
2. in an age of 在.....的时代
We live in an age of rootless alienated people.
我们生活在一个人际关系完全疏离的时代。
3. make money off 从中赚钱
No one about to make any money off Bernie Land.
没有人会从伯尼的地产中赚钱。

Part IV Exercises

Translate the sentences into Chinese

1. In an age of mass production when everything must be planned and designed, design has become the most powerful tool with which man shapes his tools and environments (by extension, society and himself). This demands high social and moral responsibility from the designer.
2. Design must be an innovative, highly creative, cross-disciplinary tool responsive to the true needs of men. It must be more research-oriented, and we must stop defiling the earth itself with poorly-designed objects and structures.

Part V Free Reading

HOW TO SUCCEED IN DESIGN

WITHOUT REALLY TRYING:

Areas of Attack for Responsible Design

One cannot build life from refrigerators, politics, credit statements and crossword puzzles. That is impossible. Nor can one exist for any length of time without poetry, without color, without love.

ANTOINE DE SAINT-EXUPERY

Industrial design differs from its sister arts of architecture and engineering. Where architects and engineers are hired to solve problems, industrial designers are often hired to create new ones. Once they have succeeded in building a new dissatisfaction into people's lives, they are then prepared to find a temporary solution for it.

The basic performance requirements in engineering have not really changed too much

since the days of Archimedes: be it an automobile jack or space station, it has to work, and work optimally at that. While the architect may use new methods, materials, and processes, the basic problems of human physique, circulation, planning, and scale are as true today as in the days of the Parthenon.

As we move further into our age of mass production, design has become ubiquitous. All of our means of communication, transportation, consumer goods, military hardware, furniture, packages, medical equipment, tools, utensils, etc., are designed for us. With a present worldwide need of 472 million individual family living units, it can be safely predicted that even 'housing', still built individually by hand, will become a fully industrially designed mass-produced consumer product within a decade.

What is the contemporary architect, if not a master assembler of elements? At his elbow is Sweet's Catalogue, the twenty-six bound volumes that list most building components, panels, mechanical equipment, etc., that occupies an honored place on the shelves of most architects' libraries. With its help, he fits together a puzzle called 'house' or 'school' or whatever, by plugging in components—designed, for the most part, by industrial designers and listed conveniently among the 10,000 entries in Sweet's. Where his predecessors might have used marble fasciae, he substitutes aluminum sandwich panels filled with polystyrene. (It is instructive to note that the handful of architects attempting to design and build in a Wrightian, original, and innovating manner, Bruce Goff, Paolo Soleri, Herb Greene, et al., have actually collectively built 0~3 houses annually.) Quite naturally some of the largest architectural offices, which have a budget permitting the use of a 1401~1410 computer set-up, merely feed all of Sweet's pages as well as the economic and environmental requirements of the job into the computer, and let the computer 'design' the building. With endearing candor, some architects have taken pains to explain that 'the computer does an excellent job'.

At other times, as in the case of the new TWA Terminal at Kennedy International Airport, the architect may create what is no more than a three-dimensional trademark, an advertisement through which people are fed, but whose function it is to 'create a corporate image' for the client, rather than provide minimal comfort and facilities for passengers. Having been trapped at the TWA Terminal during a fifteen-hour power blackout, I can vouch for the inability of this sculptural 'environment' to process men, food, water, waste, or luggage.

One of the difficulties with design-by-copying, design through eclecticism, is that the handbooks, the style manuals, and computer banks continuously obsolesce, go out of style, and become old-fashioned and irrelevant to the problem at hand. Further more, not only aesthetics is eliminated in designing via sweefs and/or the computers: 'The Concert Hall and the Moonshot Syn drome', by William Snaith in his Irresponsible Arts, gives an excellent

example of this.

The lacy mantles and Gothic minarets of Edward Durell Stone and Yamasaki are little more than latter-day extensions of the Chicago Fair of 1893. Frothy trifles, concocted to re-inject neo-romanticism into our prefabricated, pre-chewed, and predigested cityscape, can nonetheless be unconsciously revealing. For who could see Yamasaki's soaring Gothic arches at the Seattle Science Pavilion without realizing that the science was at last elevated through glib design clichés to the stature of religion? One almost expected Dr Edward Teller to appear one Sunday morn, arrayed in laboratory vestments, and solemnly intone: ($E = mc^2$).

If the need for some 472 million housing units around the world is to be met, surely the answer lies in mass-production techniques and totally new concepts. The architect as supreme master builder or the architect who defiles this fair land with gigantic sterile file cabinets, ready to be occupied by interchange able people, or the speculative builder with his 'boxes, little boxes' all are anachronisms in the seventies.

Buckminster Fuller, Jim Fitzgibbon of Synergetics, Inc., and a few other bold experimenters would shudder at the appellation 'architect'. But they are the type of designer whose comprehensive inventory of resources and needs in terms of global men, materials, tools, and processes will give us the industrially designed shelter of tomorrow.

When Moshe Safdie designed and built habitat, an example of a radically new type of shelter, for the Montreal Exposition of 1967, he was among the first architect-planners who attempted to use a modular building system intelligently. habitat has often been faulted for being both too expensive and too complex. In reality habitat is probably the least expensive and at the same time most varied system that can be devised, and it is instructive to note that the Canadian Exposition Board made it impossible to build more than one-third of the units. The strength of habitat lies in the fact that once a large amount of money has been invested in basic building and handling equipment, the system then begins to pay for itself as more units are built. For a fuller understanding of the habitat system, see Safdie's two newer projects in Puerto Rico and Israel (cf. R. Buckminster Fuller's *Nine Chains to the Moon* - page 37, and Moshe Safdie's book, *Beyond Habitat*).

Hemlines go up and hemlines go down, the pneumatic sweater girl of the forties changed to the shaggy, bulky look of the fifties, only to be replaced by the glistening, jack-booted, vinyl-clad teeny-bopper of the sixties; and necklines, we are promised, will plunge more deeply soon. Our young lady, window shopping in front of Paraphernalia Inc., fully equipped with her 'Frankly Fake Fur' miniskirt, electronic bra, black lace stockings and spike-heeled gold boots, has now finally emerged full-blown from the pages of Sacher-Masoch and Krafft-Ebing, read as arbiters of turned-on fashion. Men, gyrating from the 'Bold', to the 'Ivy-League', to the 'Continental', to the 'Carnaby Street', and later the

'Virile' look, have also been at the mercy of fashion stylists. But here again, as in architecture, the industrial designer has entered the field of design for clothing through the back door, creating disposable work gloves (200 to a roll), ski boots, space suits, protective throw-away clothing for men handling radioactive isotopes, combat suits, and scuba gear. Lately, with the introduction of 'breathing' and therefore really usable leather substitutes, much of the boot, belt, handbag, shoe, and luggage industry, too, is turning to the product designer for help. New techniques in vacuum forming, slush molding, gang turning, etc., make mass-production design possible for products traditionally associated with handcrafted operations.

Thus tool, shelter, clothing, and breathable air and usable water are not only the job but also the responsibility of the industrial designer.

Mankind is unique among animals in its relationship to the environment. All other animals adapt themselves auto plastically to a changing environment (by growing thicker fur in the winter or evolving into a totally new species over a half-million-year cycle); only mankind transforms earth itself to suit its needs and wants. This job of form-giving and reshaping has become the designer's responsibility. A hundred years ago, if a new chair, carriage, kettle, or a pair of shoes was needed, the consumer went to the craftsman, stated his wants, and the article was made for him. Today the myriad objects of daily use are mass-produced to a utilitarian and aesthetic standard often completely unrelated to the consumer's need. At this point Madison Avenue must be brought in to make these objects desirable or even palatable to the mass consumer.

With products produced by the millions, mistakes are multiplied a million times too, and the smallest decision in design planning may have far-reaching consequences.

A simple example will suffice: Let's assume that the designers concerned with automotive styling in Detroit decide to move the car ashtray just eleven inches to the right, in order to establish greater 'dashboard symmetry'. And the results? Twenty thousand Americans killed outright and another ninety thousand maimed on our highways within five years. Almost an eighth of a million deaths and major accidents, caused by the driver being forced to reach just eleven inches further, thus diverting attention from the road for an extra 1/50 seconds. These figures are an extrapolation of the Vehicular Safety Study Program at Cornell University. It is interesting to note in this connection that, at the time of this writing, a General Motors executive has said that CGM bumpers offer one hundred percent protection from all damage (and are therefore safe) if the speed of the car does not exceed 2.8 m. p. h. (my italics). Meanwhile, the president of Toyota Motors is building a \$445,000 shrine to 'honor the souls of those killed in his cars'. (Quoted in Esquire magazine, January 1971.)

Consider the home appliance field. Refrigerators are not designed, aesthetically or even physically, to fit in with the rest of the kitchen equipment. Rather, they are designed to