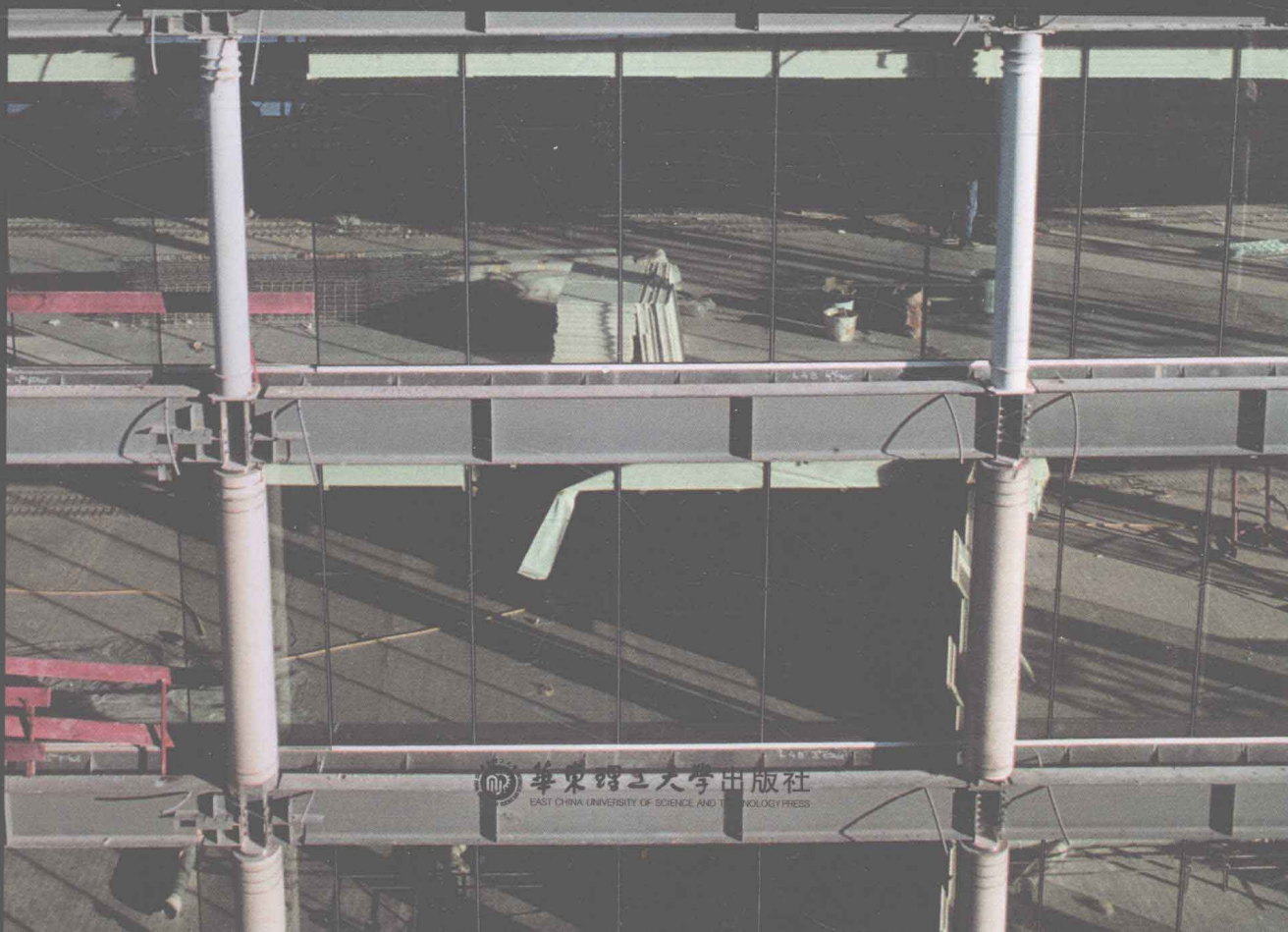


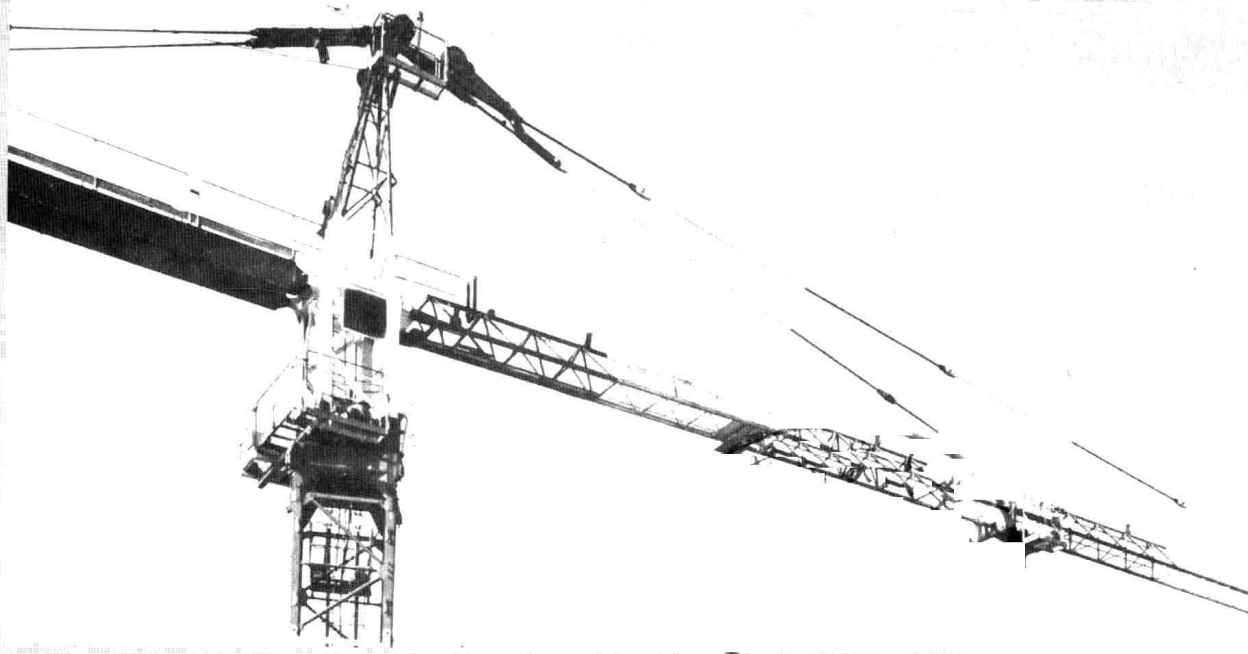
# English for Architecture

# 建筑英语

周青 赵晖 主编 邹爱民 主审



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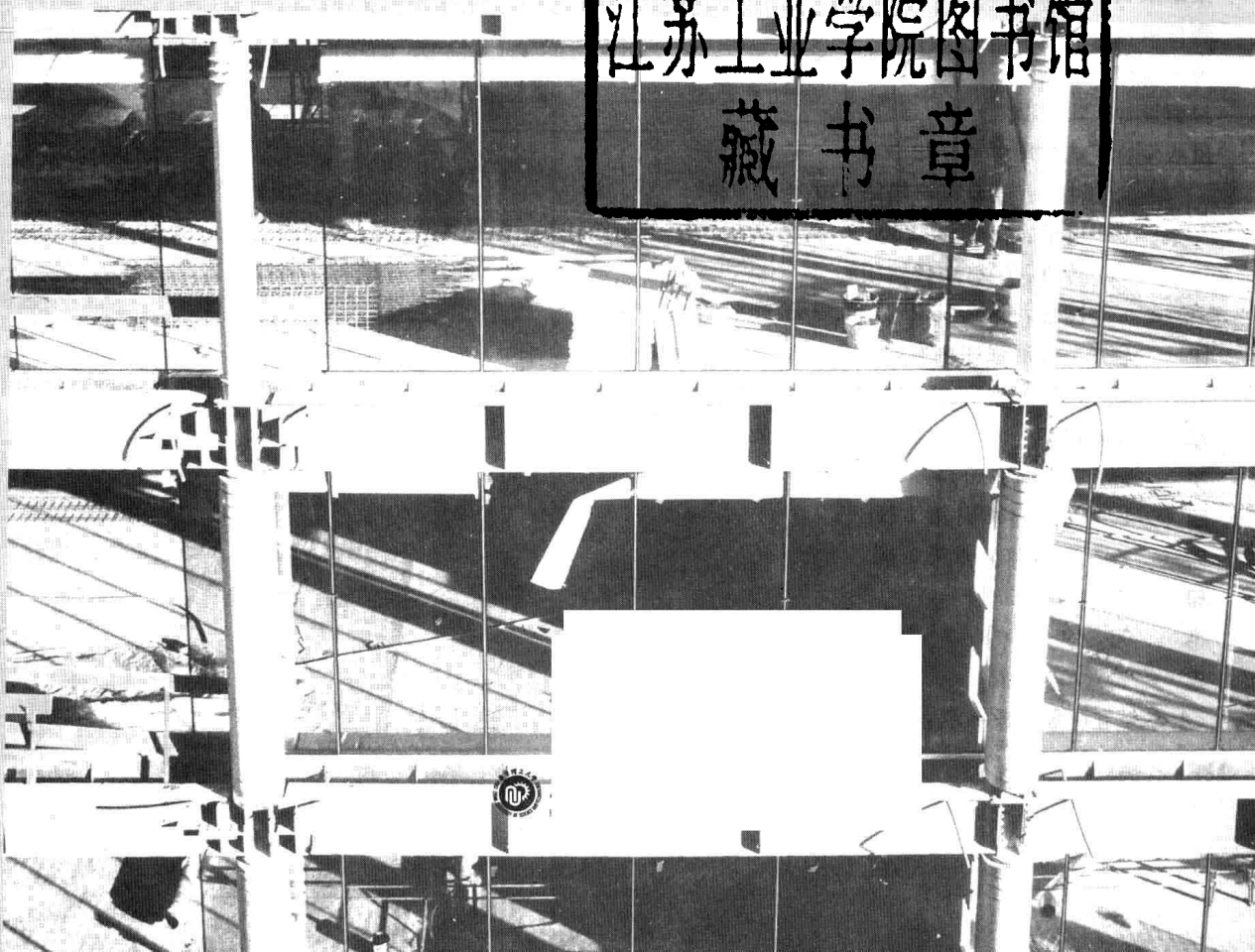


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周青 赵晖

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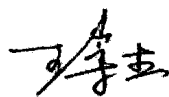


## 序

英语是一种拓展国际视野、推进国际交流的语言工具;推及此义,建筑英语属于工程英语范畴,是建筑相关产业的从业人员开展国际工程业务交流的重要语言工具。

建筑业作为我国国民经济的支柱产业,是20世纪80年代实行改革开放政策后最早开放的行业之一。随着经济全球化和我国改革开放步伐的纵深推进,建筑业及其相关衍生行业多已走出国门,从工程外包、工程设计施工、技术合作到管理模式、设计理念,建筑业从业人员参与国际交流、合作和竞争的机会越来越多。建筑业的全面开放已成为提升整个产业可持续发展、提升行业竞争力的必由之路。与此同时,建筑类院校学生、建筑专业从业人员对于紧密结合工程实际的建筑外语的需要变得现实而紧迫。

为满足广大建筑类院校学生、建筑专业从业人员从事国际建筑工程业务交流的需要,备受期待的《建筑英语》一书经过周青、赵晖等几位编者仔细编著得以付梓成稿。本书编者长期工作在外语教学一线,具有丰富的语言教学实践经验,她们在全面考察国内与部分国外建筑行业的基础上,针对涉外建筑实践中出现的语言交流问题,总结长期外语教学的实践经验,利用所在院校为高等建筑专业院校的有利条件,为专业外语学生编写了这本涵盖面广、理解性强的建筑类专业外语教材。我相信,建筑类院校广大学生通过系统学习《建筑英语》,必将为以后从事建筑对外交流提供重要的语言保障,进而为推进我国建筑业全面实现与国际市场接轨、推动建筑业又好又快发展发挥应有作用。



(山东建筑大学校长、博士生导师、中国建筑技术学术副主任委员)

2008年6月

# 前言

21 世纪是一个国际化的知识经济时代,所面临的挑战决定了高等院校英语人才的培养目标——培养具有扎实的英语语言基础和广博的文化知识并能熟练地运用英语在外事、教育、经贸、文化、科技、军事等部门从事翻译、教学、管理、研究等工作的复合型英语人才。因此,如何办好工科院校开设的英语专业是我们所面临的一个难题,尤其是如何依托高校建筑工程类专业办好工科院校的英语专业,如何从课程设置上体现山东建筑大学英语专业的建筑科技特色等问题始终困扰着我们。在此情况下,开设一门体现山东建筑大学英语专业特色的建筑英语课程的同时,系统地编写一本既注重语言基础知识又可贯穿建筑专业基础知识的英语教材变得尤为迫切和重要。

我们通过对建筑英语教材市场的考察,利用所在院校为高等建筑专业院校的有利条件,凭借自己在建筑英语课程中积累的丰富教学经验以及对建筑英语教材市场缺乏的敏感性,及时组织该学院的一批有着多年教学经验和科研能力的老师,潜心研究、查找资料,历时一年有余,编写出了《建筑英语》一书。

该教材从重视建筑专业知识和强化英语语言知识的双重视角,参阅了大量的相关书籍,从多方面收集有关建筑专业的英语文章,内容涉及主要的建筑专业理论知识、国内外著名的建筑实例以及著名建筑师的生平和作品介绍。该教材资料翔实、结构严谨,文章选择恰当、涵盖面比较广,语言平实流畅、词汇难度适中,课后讲解详细到位,既注意到专业术语翻译的准确性又兼顾到了英汉两种语言的差异性,课后练习更是全面客观。

全书分为三个单元,共 15 课。第一单元以介绍世界著名建筑 and 设计师为主;第二单元介绍土木工程相关知识;第三单元则引入房地产相关知识。每单元分为以下三个部分:

Section A 课文——通过学习运用与本单元内容相关的文章,结合课后习题,重点讲授建筑英语基础知识及培养学生的阅读和翻译应用能力。

Section B 阅读——通过提供一些与 Section A 内容相关的文章,为学生提供更多信息,拓宽专业领域内容,丰富单元教学材料,培养学生自学能力。

Section C 写作——旨在培养学生参照范例用英语拟写建筑领域的涉外信函、合同文件等应用文的能力。

编著一本书要考虑合适的读者,每一本书都是为一定的读者群服务的。《建筑英语》一书体现了这一编著的基本宗旨,该书为建筑类专业英语教材,其读者群定位在英语专业高年级学生,尤其是致力于建筑英语研究、日后从事涉外工程

工作的学生以及对建筑英语感兴趣或从事建筑英语翻译的读者。

相信该教材一定会对以后的建筑英语教材和参考书的编写工作起到更好的促进作用,将会为广大师生所喜爱。

本书编委会

# 目 录

## Unit One

### Lesson One

Section A	What a Building Is .....	2
Section B	Building Structures .....	8
Section C	Writing—English Writing for International Project Contract Document and Correspondence .....	12

### Lesson Two

Section A	An Introduction to Design Process .....	16
Section B	How Do We Design .....	22
Section C	Writing—Contract Agreement .....	26

### Lesson Three

Section A	The Art of the Skyscraper .....	28
Section B	High-rise Buildings .....	34
Section C	Writing—Call for Tenders/Bids by Employer .....	39

### Lesson Four

Section A	Brief Introduction of the Predecessor World Trade Center .....	42
Section B	Daniel Libeskind .....	51
Section C	Writing—Letter of Tender .....	55

### Lesson Five

Section A	Architects<1> .....	57
Section B	Architects<2> .....	66
Section C	Writing—Letter of Acceptance .....	72

## Unit Two

### Lesson Six

Section A	Careers in Civil Engineering .....	76
Section B	Civil Engineering .....	83



Section C	Writing—Inquiry for Supply .....	89
-----------	----------------------------------	----

### **Lesson Seven**

Section A	Building Materials .....	90
Section B	The Choice of Building Materials .....	96
Section C	Writing—Quotation for Supply .....	101

### **Lesson Eight**

Section A	Cost Estimation .....	103
Section B	Costs Associated With Constructed Facilities .....	112
Section C	Writing—Execution of Orders .....	117

### **Lesson Nine**

Section A	What Is Project Management .....	119
Section B	Project Management .....	126
Section C	Writing—Notice to Commence .....	131

### **Lesson Ten**

Section A	Civil Engineering Contracts .....	132
Section B	Fixed-price Contract .....	138
Section C	Writing—Notice of Tests on Completion .....	144

## **Unit Three**

### **Lesson Eleven**

Section A	Characteristics of Real Estate .....	146
Section B	A Brief History of Real Estate Development .....	153
Section C	Writing—Excellent Execution Certificate .....	158

### **Lesson Twelve**

Section A	Marketing Real Estate .....	160
Section B	Investors in Real Property .....	168
Section C	Writing—Claims by Contractor .....	173

### **Lesson Thirteen**

Section A	Mortgages and Financial Market .....	175
Section B	Basic Concepts About Mortgage .....	182
Section C	Writing—Securities/Bonds/Guarantees (1) .....	186

## **Lesson Fourteen**

Section A	Methods of Valuation .....	188
Section B	Reasons for Valuations .....	198
Section C	Writing—Securities/Bonds/Guarantees (2) .....	202

## **Lesson Fifteen**

Section A	Building Units .....	204
Section B	Unity .....	211
Section C	Writing—Securities/Bonds/Guarantees (3) .....	217

参考书目 .....	219
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# Unit One

Lesson One

Lesson Two

Lesson Three

Lesson Four

Lesson Five





# Lesson One

## Section A What a Building Is

A building does not express its meaning in the same way as a picture or a sculpture, because it is by nature much more complex. It demands a prior effort of analysis. In the first place, we never see a building in its totality; we can never obtain more than partial views both of the exterior and interior, with the result that we are always obliged to relate what we can see to what we cannot see to form a clear picture of the whole. It is impossible simply to indulge the pleasure of the eye; one has to think as well as look. To help us in this intellectual exercise we have an important tool to hand, the plan, which informs us simultaneously about exterior and interior, the whole and the part. Together with the cross section, which reveals the structure, it gives in abstract form a composite image of the building which photographs in whatever number—could never give. It is therefore necessary, before anything else, to learn to read a plan and to familiarize oneself in a general way with the various means of graphic expression used in architecture (cross section, elevation, axonometric plan).

The transformations to which buildings are subject constitute a second difficulty. Very often we can no longer see today what the builders would have wished; projects are abandoned or modified before completion; parts that were complete are demolished; others, added later, are of a different character. Time, it is true, alters all works of art, but its effect on architecture is more noticeable because the construction of a major building takes a long time, and because buildings—always intended for use—must be adapted to the changing needs of men. We should not, therefore, look at a building completed at one stretch and still more or less intact, such as Salisbury Cathedral, in the same way as we regard an incomplete chateau, such as Brissac, or a building that has been continuously altered, such as Versailles. In the first unusual case, we are immediately in a position to appreciate the work of the builders; in the second, we have to imagine what was intended; and in the third case, we have to discover the successive stages of building to interpret correctly what we see, and not attribute to the intention of a single architect what we win the product of several building campaigns.

Finally, it should never be forgotten that even the most magnificent buildings were never intended simply as works of art, and that they are incomprehensible if one is unaware of their purposes, whether utilitarian or symbolic. The particular forms of religious buildings, houses and palaces, are always a reflection of the demands of religious cult, of everyday life, or of the exercise of power in any given society. Less





independent than other artists, the architect exercises his powers of invention within a framework strictly defined by the society to which he belongs and the individuals to whom he is owed each commission. Such constraints, compelling to a degree dependent on the particular age and social level (the Greek temple, the urban dwelling, are highly standardized types), impose limits on invention, but also confer on architecture an important social significance; buildings are a unique embodiment, the most durable, the most manifest—of the needs and dreams of man.

We take an interest in a building to the degree to which we see in it “effects” of volume, space, rhythm and color that please us. In certain cases—an urban dwelling or rural architecture, for example—these effects are very simple and result above all from harmony between a building and its environments. In other cases—the most interesting—these effects are extremely complex and can be attributed to one or more creative individuals who have deliberately contrived them. Between these two extremes—architecture without architects and the architecture of great masters—there are numerous degrees, but it would be pointless to distinguish them. It is more worthwhile to identify the various means of expression available to architecture; only in this way can we enrich our perception of the buildings we encounter.

This perception should not be equated with aesthetic appreciation, but it is a necessary precondition. Without it, spontaneous judgments which appear to be expressions of personal opinions do no more than repeat preconceived ideas—on the “breeness” of the Romanesque, the “excesses” of the Baroque, the “frigidity” of classical churches. Thus we could not recommend to the reader too strongly to forget such prejudices and to look with a fresh eye and open mind in order to appreciate the objectives peculiar to each style.

All these observations lead to the same conclusion: a work of architecture is too complex to be understood at first glance; one has simultaneously to be aware of all its elements, to imagine its successive states (including those that were never completed), and to know what it signified to those who built it. This initial analysis must precede aesthetic appreciation. It enables one to form a clear picture of the building and to differentiate between what is due to constraints (structural necessity, existing buildings, stylistic conventions, demands of the client), and what is the product of purely artistic creation, the play of forms.

## Words and Expressions

1. Salisbury Cathedral 索尔兹伯里大教堂
2. chateau [法]城堡
3. Palais de Versailles 凡尔赛宫
4. Romanesque 罗马式建筑

5. Baroque 巴洛克式建筑
6. plan *n.* 平面图
7. elevation *n.* 正视图
8. axonometric *a.* 三向投影的

- |   |                                  |
|---|----------------------------------|
| 9. intact <i>a.</i> 完整的, 未受损的             | 16. stylistic <i>a.</i> 风格的, 文体的 |
| 10. utilitarian <i>a.</i> 功利主义的, 实用的      | 17. to hand 手边                   |
| 11. symbolic <i>a.</i> 象征主义的              | 18. cross section 剖面图            |
| 12. cult <i>n.</i> 信仰; 狂热, 崇拜             | 19. axonometric plan 三向投影图       |
| 13. contrive <i>v.</i> 发明, 设计             | 20. at one stretch 一口气, 连续地      |
| 14. aesthetic/esthetic <i>a.</i> 美学的, 审美的 | 21. confer on sb. sth. 授予某人某物    |
| 15. frigidity <i>n.</i> 索然无味, 冷淡          |                                  |

## Notes

- 1** ... we can never obtain more than partial views both of the exterior and interior, with the result that we are always obliged to relate what we can see to what we cannot see to form a clear picture of the whole.

译文: 我们所能获得的仅为建筑内外的部分印象, 结果, 我们总是不得不将我们所看到的与我们所不能看到的联系起来才能形成一幅清晰、完整的图画。

解析: 本句 that 从句中包含句型 relate sth. (what-从句) to sth. (what-从句)。

- 2** It is impossible simply to indulge the pleasure of the eye...

译文: 仅仅沉浸于美观的享受是不行的……

- 3** Together with the cross section, which reveals the structure, it gives in abstract form a composite image of the building which photographs in whatever number—could never give.

译文: 平面图与展示建筑内部结构的剖面图一起, 以抽象形式构成一幅合成的建筑图, 这是无论多少幅照片都不能表现的。

- 4** The transformations to which building are subject constitute a second difficulty.

译文: 由图示向建筑实物转变又遇到了困难。

- 5** ... we have to discover the successive stages of building to interpret correctly what we see, and not attribute to the intention of a single architect what win the product of several building campaigns.

译文: 我们不得不去发现建筑的连续阶段以便正确理解所看到的内容, 而不能将几次建筑活动的结果归于一个建筑师的构想。

解析: attribute to the invention... several building campaigns 原句句型为 attribute A to B, 意为“将 A 归于 B”。直接宾语是从句“what was the product of several building campaigns”由于太长而后置。

- 6** Finally, it should never be forgotten that even the most magnificent buildings were never intended simply as works of art, and that they are incomprehensible if one is unaware of their purposes, whether utilitarian or symbolic.

译文: 最后, 绝对不应该忘记, 即便最宏伟的建筑也绝不是只作为艺术品而建。如果不注意到建筑的目的, 无论是现实主义的还是象征主义的建筑, 都是不能被人们理解的。



- 7 Such constraints, compelling to a degree dependent on the particular age and social level (the Greek temple, the urban dwelling, are highly standardized types), impose limits on invention, but also confer on architecture an important social significance: buildings are a unique embodiment, the most durable, the most manifest—of the needs and dreams of man.

译文: 这样的局限性, 按特定的年代和社会水平(希腊神庙和城市住宅便是极为标准的类型)对建筑师的创造力有着不同程度的限制, 但同时也赋予建筑艺术一个重要的社会意义: 建筑是一种奇特的表现形式, 是人类需求与梦想最持久最直观的表现形式。

- 8 We take an interest in a building to the degree to which we see in it “effects” of volume, space, rhythm and color that please us.

译文: 我们对一幢建筑物感兴趣, 因而从中我们看到令我们赏心悦目的体积、空间、节奏和色彩的“效应”。

- 9 Without it, spontaneous judgments which appear to be expressions of personal opinions do no more than repeat preconceived ideas—on the “bareness” of the Romanesque, the “excesses” of the Baroque, the “frigidity” of classical churches.

译文: 没有这种理解, 同时产生的似乎表达个人观点的鉴赏就只不过是重复以前的观念: 罗马式建筑的“贫瘠”, 巴洛克式建筑的“矫揉造作”, 早期教堂建筑的“平淡无奇”。

- 10 Thus we could not recommend to the reader too strongly to forget such prejudices and to look with a fresh eye and open mind in order to appreciate the objectives peculiar to each style.

译文: 因而我们向读者强调这一点并不过分: 忘却这些成见, 并以新奇的眼光和开明的头脑去观察, 以便欣赏每种风格所特有的建筑形式。

解析: ...could not... to: .....并不过分; 越.....越好。

- 11 It enables one to form a clear picture of the building and to differentiate between what is due to constraints (structural necessity, existing buildings, stylistic conventions, demands of the client), and what is the product of purely artistic creation, the play of forms.

译文: 它可以使人构成一幅建筑的清晰画面, 并能区别各种限制条件(结构需要、现存建筑、风格的沿袭、客户的要求等)造成的结果和纯粹艺术创造的结果, 即对艺术形式的随意运用。

解析: 本句结构 It enables one to from... and to differentiate between A (what-从句) and B (what-从句); 句末的 the play of forms 为 purely artistic creation 的同位语。

## Exercises

### I. Questions on Text A

1. If we want to understand the meaning the building expresses, it needs a prior effort of analysis, why?



2. Though time alters all works of art, the graphic expressions can be transformed to buildings without much difficulty, is that right? Why?
3. What constrains the architect's powers of invention?
4. How can we enrich our perception of the building?

## II. Match the descriptions in Column B with the terms in Column A

### Column A

1. building
2. cross section
3. elevation
4. axonometric
5. plan

### Column B

- a. something that has been cut in half so that you can look at the inside, or a drawing of this
- b. a structure such as a house, church, or factory that has a roof and walls
- c. a method of drawing a plan view with a third dimension. It is used by interior designers, architects and landscape gardeners
- d. an upright side of a building, as shown in a drawing done by an architect
- e. a drawing of a building, room, or a machine as it would be seen from above, showing the shape measurements position of the walls etc.

## III. Blank Filling

### Part A Fill in the blanks with the information words that you can find in Text A

1. We usually perceive the building in such a way: in the first unusual case, we are immediately in a position to \_\_\_\_ 1 \_\_\_\_ the work of the builders; in the second, we have to \_\_\_\_ 2 \_\_\_\_ what was intended; and in the third case, we have to \_\_\_\_ 3 \_\_\_\_ the \_\_\_\_ 4 \_\_\_\_ stages of building to \_\_\_\_ 5 \_\_\_\_ correctly what we see, and not attribute to the intention of a single \_\_\_\_ 6 \_\_\_\_ what win the product of several building campaigns.
2. In certain cases—an urban dwelling or rural architecture, for example—these effects are very simple and result above all from \_\_\_\_ 1 \_\_\_\_ between a \_\_\_\_ 2 \_\_\_\_ and its \_\_\_\_ 3 \_\_\_\_ . In other cases—the most interesting—these effects are extremely complex and can be attributed to one or more \_\_\_\_ 4 \_\_\_\_ individuals who have deliberately \_\_\_\_ 5 \_\_\_\_ them. Between these two extremes—architecture without \_\_\_\_ 6 \_\_\_\_ and the architecture of great \_\_\_\_ 7 \_\_\_\_ —there are numerous degrees, but it would be pointless to \_\_\_\_ 8 \_\_\_\_ them. It is more worthwhile to \_\_\_\_ 9 \_\_\_\_ the various means of expression available to architecture; only in this way can we enrich our \_\_\_\_ 10 \_\_\_\_ of the buildings we encounter.

### Part B Fill in the blanks with proper function words

Very often we can no longer see today what the builders would have wished; projects





are abandoned \_\_\_\_\_ 1 \_\_\_\_\_ modified before completion, parts that were complete are demolished, others, added later, are \_\_\_\_\_ 2 \_\_\_\_\_ a different character. Time, it is true, alters all works of art, but its effect \_\_\_\_\_ 3 \_\_\_\_\_ architecture is more noticeable because the construction of a major building takes a long time, and because buildings—always intended for use—must be adapted \_\_\_\_\_ 4 \_\_\_\_\_ the changing needs of men. We should not, therefore, look at a building completed \_\_\_\_\_ 5 \_\_\_\_\_ one stretch and still more or less intact, such as Salisbury Cathedral, in the same way \_\_\_\_\_ 6 \_\_\_\_\_ we regard an incomplete chateau, such as Brissac, or a building that has been continuously altered, such as Versailles.

#### IV. Put the following long sentences into Chinese

1. It is therefore necessary, before anything else, to learn to read a plan and to familiarize oneself in a general way with the various means of graphic expression used in architecture (cross section, elevation, axonometric plan).
2. The particular forms of religious buildings, houses and palaces, are always a reflection of the demands of religious cult, of everyday life, or of the exercise of power in any given society.
3. Less independent than other artists, the architect exercises his powers of invention within a framework strictly defined by the society to which he belongs and the individuals to whom he owes each commission.
4. In other cases—the most interesting—these effects are extremely complex and can be attributed to one or more creative individuals who have deliberately contrived them.
5. All these observations lead to the same conclusion: a work of architecture is too complex to be understood at first glance: one has simultaneously to be aware of all its elements, to imagine its successive states (including those that were never completed), and to know what it signified to those who built it.

#### V. Put the following sentences into English

1. 一般情况下,都有几门非建筑学学科在决定建筑方案上起着关键性作用,较明显的有:行为科学、工程学(结构和力学)和经济学。
2. 许多学校都有建筑概论课,其内容从列举建筑业的诸方面到回顾人类建筑活动的历史进程。
3. 目前,最后的结构计算通常是由专家承担,结构计算不是建筑师的主要职责,但他有必要掌握这方面的知识。
4. 建筑工程的各个方面似乎都有各自的专家。最常见的方面有:任务规划、施工说明、合同签订、造价估算、施工管理、场地规划、室内设计、音响、照明、供热与空调、电器与结构设计。
5. 透彻了解先辈们在建筑风格和建筑技术上的异同,有助于理解与建筑需求相关的当代文化。