

高等学校试用教材

建筑类 专业英语

建筑管理与财会
(第三册)

English in Architecture and Construction

蔡慧俭 陆铁镛 主编



中国 建筑 工业 出版 社

11/11/11
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中国建筑工业出版社

(京)新登字 035 号

本书根据国家教委颁发的《大学英语专业阅读阶段教学基本要求》规定组织编写的专业英语教材。本册包括营销战略, 管理会计, 成本, 计算机在建筑管理方面应用, 英、日等国大建筑公司概况、建筑战略框架等。全书安排 16 个单元, 每单元除正课文外, 还有两篇阅读材料, 均配有必要的注释。正课文还配有词汇表和练习, 书后附有总词汇表、参考译文和练习答案。语言难度大于第一、二册, 并配有科技英语写作的简要说明与写作练习。

本书供本专业学生四年级上半学期使用, 也可供有关工程技术人员自学英语使用。

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中国建筑工业出版社出版(北京西郊百万庄)
新华书店总店科技发行所发行
北京市兴顺印刷厂印刷

*

开本: 787×1092 毫米 1/16 印张: 13 字数: 316 千字

1997 年 6 月第一版 1997 年 6 月第一次印刷

印数: 1—2000 册 定价: 10.80 元

ISBN7-112-03040-4

TU·2330(8156)

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(邮政编码 100037)

前 言

经过几十年的探索,外语教学界许多人认为,工科院校外语教学的主要目的,应该是:“使学生能够利用外语这个工具,通过阅读去获取国外的与本专业有关的科技信息。”这既是我们建设有中国特色的社会主义的客观需要,也是在当前条件下工科院校外语教学可能完成的最高目标。事实上,教学大纲规定要使学生具有“较强”的阅读能力,而对其他方面的能力只有“一般”要求,就是这个意思。

大学本科的一、二年级,为外语教学的基础阶段。就英语来说,这个阶段要求掌握的词汇量为2 400个(去掉遗忘,平均每个课时10个单词)。加上中学阶段已经学会的1 600个单词,基础阶段结束时应掌握的词汇量为4 000个。仅仅掌握4 000个单词,能否看懂专业英文书刊呢?还不能。据统计,掌握4 000个单词,阅读一般的英文科技文献,生词量仍将有6%左右,即平均每百词有六个生词,还不能自由阅读。国外的外语教学专家认为,生词量在3%以下,才能不借助词典,自由阅读。此时可以通过上下文的联系,把不认识的生词猜出来。那么,怎么样才能把6%的生词量降低到3%以下呢?自然,需要让学生增加一部分词汇积累。问题是,要增加多少单词?要增加哪一些单词?统计资料表明,在每一个专业的科技文献中,本专业最常用的科技术语大约只有几百个,而且它们在文献中重复出现的频率很高。因此,在已经掌握4 000单词的基础上,在专业阅读阶段中,有针对性地通过大量阅读,扩充大约1 000个与本专业密切有关的科技词汇,便可以逐步达到自由阅读本专业科技文献的目的。

早在八十年代中期,建设部系统院校外语教学研究会就组织编写了一套《土木建筑系列英语》,分八个专业,共12册。每个专业可选读其中的三、四册。那套教材在有关院校相应的专业使用多年,学生和任课教师反映良好。但是,根据当时的情况,那套教材定的起点较低(1 000词起点),已不适合今天学生的情况。为此,在得到建设部人事教育劳动司的大力支持,并征得五个相关专业教学指导委员会同意之后,由建设部系统十几所院校一百余名外语教师和专业课教师按照统一的编写规划和要求,编写了这一套《建筑类专业英语》教材。

《建筑类专业英语》是根据国家教委颁发的《大学英语专业阅读阶段教学基本要求》编写的专业阅读教材,按照建筑类院校共同设置的五个较大的专业类别对口编写。五个专业类别为:建筑学与城市规划;建筑工程(即工业与民用建筑);给水排水与环境保护;暖通、空调与燃气;建筑管理与财务会计。每个专业类别分别编写三册专业英语阅读教材,供该专业类别的学生在修完基础阶段英语后,在第五至第七学期专业阅读阶段使用,每学期一册。

上述五种专业英语教材语言规范,题材广泛,覆盖相关专业各自的主要内容:包括专业基础课,专业主干课及主要专业选修课,语言材料的难易度切合学生的实际水平;词汇

以大学英语“通用词汇表”的4 000个单词为起点，每个专业类别的三册书将增加1 000~1 200个阅读本专业必需掌握的词汇。本教材重视语言技能训练，突出对阅读、翻译和写作能力的培养，以求达到《大学英语专业阅读阶段教学基本要求》所提出的教学目标：“通过指导学生阅读有关专业的英语书刊和文献，使他们进一步提高阅读和翻译科技资料的能力，并能以英语为工具获取专业所需的信息。”

《建筑类专业英语》每册16个单元，每个单元一篇正课文(TEXT)，两篇副课文(Reading Material A & B)，每个单元平均2 000个词，三册48个单元，总共约有十万个词，相当于原版书三百多页。要培养较强的阅读能力，读十万个词的文献，是起码的要求。如果专业课教师在第六和第七学期，在学生通过学习本教材已经掌握了数百个专业科技词汇的基础上，配合专业课程的学习，再指定学生看一部分相应的专业英语科技文献，那将会既促进专业课的学习，又提高英语阅读能力，实为两得之举。

本教材不仅适用于在校学生，对于有志提高专业英语阅读能力的建筑行业广大在职工程技术人员，也是一套适用的自学教材。

建设部人事教育劳动司高教处和中国建设教育协会对这套教材的编写自始至终给予关注和支持；中国建筑工业出版社第五编辑室密切配合，参与从制定编写方案到审稿各个阶段的重要会议，给了我们很多帮助；在编写过程中，各参编学校相关专业的许多专家、教授对材料的选取、译文的审定都提出了许多宝贵意见，谨此致谢。

《建筑类专业英语》是我们编写对口专业阅读教材的又一次尝试，由于编写者水平及经验有限，教材中不妥之处在所难免，敬请广大读者批评指正。

《建筑类专业英语》

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UNIT ONE

Text

Marketing Strategies

[1] For existing firms of all sizes it will, without doubt, be the policy of the controlling authority—principals or board of directors—to survive and to grow, and one of the first things which must be decided is what sort of growth is both desirable and possible, and at what rate.

[2] What is meant by growth? Is it more jobs, is it more employees, is it more turnover or is it more profit? These four possible measures are interdependent. If there are more jobs, i. e. orders, it is likely that more employees will be needed on the staff and on site. If there are more projects, turnover is likely to increase. It does not follow that increased turnover automatically means more profit, but it will do if a good standard of efficiency can be continued or improved. There is a danger here. In order to obtain greater turnover, there may be a tendency to lower prices so as to secure more contracts. The profit increase would then result from lower returns on a greater turnover. This needs very careful consideration because a few contracts which turn out to be unprofitable could upset all the calculations and although turnover would be increased, profit might well decrease.

[3] In considering growth and what it means, contractors should be very careful not to regard it simply as more turnover, more employees, bigger premises. There is only one safe way to plan growth and that is to plan for increased profit on capital employed. If that plan succeeds, it is more than likely that the other criteria will follow.

[4] The relationships between management and employees have undergone quite revolutionary changes in comparatively recent times. Because of legislation introduced to bring a greater sense of fairness into industrial relations, employers are now much more thoughtful about reducing manpower or taking on additional employees than they were 20 years ago. The UK is way ahead of many European countries and has many fewer rules and regulations, but paying off employees can be expensive, and taking on new employees has a sizeable effect on staff costs. So managements tend to be cautious in deciding to increase or decrease their employment levels. There is, therefore, a tendency not to dismiss employees unless it is absolutely unavoidable.

[5] The danger inherent in this reluctance is that a policy will be followed of trying to obtain sufficient work to keep current employees in work. Laudable as this policy is, it is not sound for two main reasons. ^① First, it means that employees are kept on where there is insufficient work to justify their retention. Large firms can follow this policy for a time, but the risks are that unless the availability of work increases and competition becomes less keen, the work load is likely to decline still further and with it profitability as prices are lowered in an effort to secure more contracts. ^② In such circumstances the number of employees for whom no worthwhile or essential work exists will increase and the problem becomes even more difficult

to resolve.

[6] Secondly, the question of unused plant and vehicles needs careful consideration. Idle plant and vehicles are to be avoided as far as possible and consideration must be given to the advisability of retaining their operators if there is no work for them.

[7] What is more, they point out clearly that growth is best measured by profit and that the success or otherwise of a firm is judged by its profit on capital employed—not on turnover, not on projects well built, not on number of employees, not on any other criterion. These other criteria help to build up the image of a firm, but profit is what they must place firmly at the head of the list.

[8] Accepting that profit is the prime objective of any firm, (after all, that is why the firm came into being in the first place), there are other considerations today which will help to achieve the main one, and which are essential for the survival and progress of the firm.

1. Satisfaction of shareholders' interests
2. Retaining the confidence of suppliers and sub-contractors
3. Satisfaction of employees
4. New fields of endeavour

New Words and Expressions

premise * [ˈpremis]	n.	前提
	v.	预述 (条件), 提出……为前提
criterion * [kraiˈtɪəriən]	n.	(criteria [kraiˈtɪəriə] 的复数形式) (批评, 批判, 检验等的) 标准; 准则
fairness [ˈfeənis]	n.	公正, 适当
take on		雇用
legislation [ˌledʒɪsˈleɪʃən]	n.	立法; 制定法律
UK = United Kingdom		
way	ad.	远远地, 大大地,
way ahead (behind)		远远在前 (后)
pay off		给薪解雇; 全部清还
cautious [ˈkɔːʃəs]	a.	小心的; 谨慎的
unavoidable * [ˈʌnəˈvɔɪdəbl]	a.	不可避免的
inherent [ɪnˈhɪərənt]	a.	内在的; 固有; 天生的
reluctance * [rɪˈlʌktəns]	n.	不愿, 勉强; 磁阻
laudable [ˈlɔːdəbl]	a.	值得赞美的; 值得褒奖的
availability * [əveɪləˈbɪlɪti]	n.	可用性; 有效性
profitability [ˌprɒfɪtəˈbɪlɪti]	n.	赢利; 有益; 有用
secure [sɪˈkjʊə]	vt.	保证, 获得

idle ['aɪdl]	a.	闲着的, 懒惰的
objective [ɒb'dʒektɪv]	n.	目标, 任务
	a.	客观的
advisability [əd,vaɪzə'bɪlɪti]	n.	可取性, 适当性
come into being		开始存在; 建立, 产生
survival [sə'vaɪvəl]	n.	幸存; 继续存在
endeavour [ɪn'devə]	n.	努力; 竭力
	v.	努力; 竭力

Notes

- ①as 用作连词, 表示让步 (语气比 although, though 强些), 注意句中的语序变化。
 ②with it 是“还有, 及”的意思。

Exercises

Reading Comprehension

1. Choose the best answer for each of the following:
- What is the main goal of any firm as far as its survival and growth are concerned?

A. More orders and employees.	B. More turnover.
C. More profit	D. More contracts.
 - With high efficiency secured, _____.
 - more turnover does not necessarily lead to more profit.
 - increased turnover means more profit.
 - more contracts will be gained.
 - there will be more projects.
 - What must be kept in mind when you plan to increase turnover?
 - Not all the contracts will be profitable.
 - There might be mistakes in the calculations.
 - Lower prices will attract more contracts.
 - The shortage of employees.
 - The recent change in the relationship between management and employees mainly lies in that _____.
 - the management will dismiss employees or take on new ones at any cost
 - the employers are more cautious in the decision of dismissing employees than before
 - there are fewer rules and regulations
 - there are more strikes than before

5. Under the circumstances of strong competition, insufficient work with the existing employees would
 - A. secure more contracts because the prices are lower at this time.
 - B. make the employer feel relaxed.
 - C. cause dissatisfaction among the employees.
 - D. make the situation of the firms even worse.
6. What is the main factor that changes the relationships between management and employees?
 - A. Strikes
 - B. Legislation
 - C. Unemployment
 - D. Higher salary
7. Which of the following is the most important factor as to the success of a firm?
 - A. The buildings.
 - B. The contracts.
 - C. The profit
 - D. The legislation.
8. Which of the following might be the problem when a firm tries to obtain sufficient work to keep present employees in work?
 - A. Contracts will turn out to be unprofitable.
 - B. The relationship between management and employees becomes tense.
 - C. There might be more employees with insufficient work when competition is keen.
 - D. The employees will be idle since there is no danger of being dismissed.

I . Read paragraph 4, 5, 6, and then fill in the blanks with proper words according to the text.

There is a tendency not to dismiss _____ unless it is absolutely unavoidable. As a result, a policy of trying to _____ sufficient work to keep _____ employees in work comes into _____. But the policy also _____ two problems. One is that there might be _____ employees with insufficient work. _____ problem involves the possible existence of _____ plant and vehicles and their _____ as well.

Vocabulary

I . Fill in the blanks with the words and expressions given below. Change the form if necessary.

contract, turnover, dismiss, profit, cautious, pay off, manpower, come into being, criterion, sizeable, strategy, objective

1. The store reduced prices to make a quick _____.
2. After we had come to terms, we discovered that we didn't have enough money in the bank to _____ him _____.
3. Owing to the reformation and the opening policy, the company has gained a _____ expansion of business.
4. Do you know when labour legislation _____?

5. What _____ do you use when judging the quality of this kind of new products?
6. The economic _____ of the eighth five-year plan has been fulfilled ahead of schedule.
7. Our shop _____ with a local clothing firm for 100 coats a week.
8. He was _____ from the accounting department because of his neglect of duty.
9. By careful _____ he gradually managed to persuade the committee to agree.
10. He was a _____ investor who studied the market before buying.

I . Match the words in Column A with their corresponding definitions in Column B.

A	B
1. legislation	a. object aimed at; purpose
2. sizeable	b. money gained in business, etc.
3. keen	c. the art and skill in planning and managing any affair
4. objective	d. of a fairly large size
5. strategy	e. making laws; the laws made
6. profit	f. standard of judgment
7. laudable	g. sharp
8. criterion	h. deserving praise

II . Supply the missing words chosen from the text.

1. In order to _____ greater turnover, there may be a tendency to _____ prices so as to _____ more contracts.
2. There is only one _____ way to plan _____ and that is to plan for increased profit on _____.
3. Idle plant and _____ are to be avoided as far as possible and consideration must be given as to maintaining their _____ if there is no _____ for them.
4. Apart from profit, there are other _____ today which will help to _____ the main one, and which are essential for the _____ and _____ of the firm.

Writing **Selecting the Key Words (1)**

Key words are informative words that can give the information about what a piece of writing is mainly talking about. they are often nouns and verbs, etc.

For example;

Read the following text and find out the key words

With the rapid industrialization of the States, air pollution is posing a problem. Fertilizer and steel plants, cement industries, thermal power plants and paper mills are among the units which cause air pollution.

Automobiles also cause air pollution as they emit smoke which contains hydro carbon nitrous oxide and carbon monoxide.

The Air Act was passed in Congress 1982 and came into effect in 1983.

Key words:

Air pollution, Pollutant, Air Act

Directions: Read the text of this Unit and find out three to five key words.

_____ , _____ , _____ , _____ , _____

Reading Material A

Factors That Affect Demand and Supply

Demand for construction work, like demand for products and services of all kinds, is a variable which changes for many reasons.

(a) Political decisions and legislation

Public authorities account for roughly 40% of total demand for new non-housing work. It follows that sizeable variations in total demand can result from variations in demand from public authorities. The client with the biggest annual demand is central government, and this demand is translated specifically into work for the construction industry or direct employees of public authorities by the various government departments. ^①

(b) Industrial and social factors

The decision of OPEC to increase the price of oil had a far-reaching effect on energy policy. ^② It increased costs of energy for transportation, lighting, power, heating and the cost of oil-based products. Since that shattering event, energy needs and methods of meeting them have never been out of the news for long. The whole question of oil supplies for the future has been examined and re-examined and the offshore oil supplies have made a significant contribution to the problems so far as the UK and some other countries are concerned.

The oil price increase also had the effect of making it essential to look to alternative sources of energy. The coal industry has put forward plans for new mines to produce good quality coal, with sufficient reserves to last for many years. These plans, when approved, will provide work for the construction industry for years to come.

The generation of electricity by the use of nuclear power has been under consideration for many years and decisions have now been taken to build more nuclear power stations. The use of water power by schemes such as Dinorwig in North Wales to provide electricity, and the possible use of tidal power are also examples of considerations which could lead to demand for construction services. Yet a further example is the possible use of giant windmills along parts of the coast to generate electricity.

Another factor affecting demand for the services of the construction industry has been the rapid growth in the electronics industry, an area still in its infancy. The development of computers has revolutionized many of our industries and commercial activities. What formerly was time and labour consuming can now be carried out extremely quickly by electronic means and

with relatively little labour. ③

Whatever the real causes of our economic troubles, the growth in unemployment is having its effect on construction demand. The introduction of the five-day week increased demand for leisure facilities, and unemployment, naturally and unfortunately, leaves more people with time to spare. It seems more likely that more leisure facilities will be needed and this will result in demand for sports centres, swimming facilities and, no doubt, squash courts where availability at present nowhere near meets demand.

The social changes in the UK have been very considerable indeed. The growth in the package holiday business has resulted in demand for more flights, more sea crossings and this means demand for runways, hard standing, airport buildings and for better dock and landing facilities at seaports.

One of the most remarkable changes in habits is the increase in dining out as a means of entertainment. The greatly increased food trade of public houses and hotels is evidence of this trend. Quite enormous car parks have been created to enable those who require meals to park without trouble. In many cases, to provide the necessary dining and cooking facilities, large extensions to the public houses and hotels have been undertaken; this has also been the case with clubs and other establishments where refreshment and entertainment go hand in hand.

These examples of changes in social habits are not comprehensive, but they give an indication of trends and how, with a little thought, growth in demand for construction services can be foreseen.

Notes

- ①具有最大年需求量的委托人是中央政府，这种需求由各政府部门具体转换成建筑业的工作或政府当局所聘用的直接雇员的工作。
- ②OPEC = Organization of Petroleum Exporting Countries 国际石油输出国组织。
- ③以前的耗时耗力的工作，现在则可用电子设备很快地完成，而且所用的劳力相对较少。

Reading Material B

The Structure of the Construction Industry

Construction work is mainly carried out on sites, most frequently in the open air and in varying locations. Although there have been extensive developments in the manufacture of components away from the site, and this practice will no doubt continue to increase, the principal work for the contractor will be performed on site in excavating, building and assembling materials and components. ① To this extent it is very different from most industries where work is carried out under cover at a permanent location.

In general, construction work falls into two categories, building and civil engineering, but projects frequently are a mixture of both. Foundations, drainage and roads occur on most building sites and can be classified as civil engineering whilst structures above ground and, in some cases below ground, can be classified as building. Building can be subdivided into four main types:

(1) General contracting includes public works, industrial and commercial building where it is usual for the client through his consultants to produce the design and specification and for the contractor to provide the construction services, using sub-contractors where necessary. ②

(2) House building is carried out in both the public and private sectors.

(3) Maintenance, repairs and modernization is growing in importance, particularly modernization or refurbishment.

(4) Sub-contracting is much more prevalent now than it was before the Second World War, partly because services required are much more sophisticated. The extent to which sub-contractors, other than those nominated by consultants, should be employed is a matter which should be considered along with other matters which affect prices and quality. ③

Table 1-1 **Numbers of firms October 1981**

General builders	45 889
Building, civil engineering contractors	2 880
Civil engineers	2 121
Plumbers	9 866
Carpenters and joiners	6 997
Painters	12 703
Roofers	3 483
Plasterers	2 975
Glaziers	2 164
Demolition contractors	458
Scaffolding specialists	512
Reinforced concrete specialists	367
Heating and ventilating engineers	5 634
Electrical contractors	9 187
Asphalt and tar sprayers	630
Plant hirers	3 508
Flooring contractors	924
Constructional engineers	1 092
Insulating specialist	847
Suspended ceiling specialists	502
Floor and wall tiling specialists	709
Miscellaneous	1 738
Total	115 186

Source: Housing and Construction Statistics 1971-1981. HMSO

Table 1-2 **Number of private contractors by size group October 1981**

Size group	Number of firms
1	40 580
2-3	35 541
4-7	20 187
8-13	9 161
14-24	5 380
25-34	1 791
35-59	1 721
60-79	528
80-114	416
115-299	598
300-599	162
600-1199	82
1200 and over	39
	115 186

Source: Housing and Construction Statistics 1971-1981. HMSO

It is clear from these figures that more than 90% of firms employ fewer than 14 operatives, and only 121 employ 600 or more. So the industry is mainly comprised of small firms. This may be a reason for the neglect of marketing planning. It is hoped to show in this text that it is not a valid reason. The application of marketing principles is independent of the size of firm but the precise methods of application vary for firms of different sizes.

Notes

- ① 尽管工地外的构件生产有了很大的发展，而且这种生产形式无疑将继续发展，但是承包商的主要工作仍在工地上进行，诸如挖掘，建造和组装建筑材料和构件。
- ② 一般的合同签订包括市政工程、工业和商业建筑，通常都是委托人通过其顾问提供设计和说明书，承包人则负责建造，有必要的話，还需用转包人。
- ③ 转包人（不是指那些由顾问指定的人）雇用范围应该是一个连同其它影响价格和质量的因素考虑的问题。