

*New Century College English*

# 新世纪大学英语

## 读与写

教师用书

(第三册)

● 华中科技大学外语系 编著

华中科技大学出版社

HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY PRESS

**New Century College English**

**新世纪大学英语**

**读与写**

**教师用书**

**(第三册)**

**华中科技大学外语系 编著**

**华中科技大学出版社**

## 图书在版编目(CIP)数据

新世纪大学英语读与写 教师用书(第三册)/华中科技大学外语系 编著  
武汉:华中科技大学出版社, 2002年10月

ISBN 7-5609-2845-5

I. 新…

I. 华…

II. 英语-高等学校-教学参考资料

IV. H31

新世纪大学英语读与写 教师用书(第三册) 华中科技大学外语系 编著

策划编辑:梅欣君

封面设计:秦 茹

责任编辑:刘 华

责任监印:张正林

责任校对:刘 竣

出版发行:华中科技大学出版社

武昌喻家山 邮编:430074 电话:(027)87545012

录 排:华中科技大学惠友科技文印中心

印 刷:华中科技大学印刷厂

开本:787×1092 1/16

印张:8.25

字数:182 000

版次:2002年10月第1版

印次:2002年10月第1次印刷

印数:1—4 000

ISBN 7-5609-2845-5/H·451

定价:11.50元

(本书若有印装质量问题,请向出版社发行部调换)

# 前 言

---

本书是为《新世纪大学英语读与写》编写的教师参考书 (Teacher's Book), 分四册出版。

每册的基本内容如下:

- I. Background Information
- II. Comprehension at Discourse Level
- III. Paraphrase
- IV. Word Study
- V. Grammar Focus
- VI. Key to the Exercises
- VII. Translation of the Text

本书编写的目的是尽可能地为使用《新世纪大学英语读与写》的教师提供各种教学素材、参考资料, 以满足教学的需要。然而, 这一目的远非我们的水平和能力所能及。为此, 我们恳请同仁及使用本书的教师提出宝贵的意见, 欢迎批评指正。

# CONTENTS

<b>Unit 1 Environment</b> .....	(1)
Part A Will Renewable Energy Come of Age in the 21st Century?.....	(1)
Part B Greenpeace Campaign.....	(6)
Part C How Big Is the Earth?.....	(9)
<b>Unit 2 Religion</b> .....	(12)
Part A Religion.....	(12)
Part B Religion and Technology.....	(20)
Part C Losing My Religion.....	(23)
<b>Unit 3 Titanic</b> .....	(25)
Part A Jack Saves the Life of Rose.....	(25)
Part B Why Are We So Fascinated with the Titanic?.....	(32)
Part C The Empress of Ireland—a Titanic Tale of Forgotten Tragedy.....	(35)
<b>Unit 4 Gender</b> .....	(38)
Part A Women and the Market.....	(38)
Part B Why I Want a Wife.....	(45)
Part C Why I Want a Husband.....	(49)
<b>Unit 5 Age and Youth</b> .....	(52)
Part A Age and Youth.....	(52)
Part B Late Bloomers.....	(57)
Part C Michael's Legacy.....	(60)
<b>Unit 6 Leonardo da Vinci</b> .....	(63)
Part A Leonardo da Vinci.....	(63)
Part B Flight and Other Obsessions: The Science of Leonardo da Vinci.....	(70)
Part C Mona Lisa.....	(73)
<b>Unit 7 Hi-tech &amp; Internet</b> .....	(75)
Part A Hi-tech Moves into a World of Its Own.....	(75)
Part B The Internet, Children and Filters.....	(81)
Part C Copyright.....	(84)
<b>Unit 8 The 21st Century</b> .....	(87)
Part A Preparing for the 21st Century.....	(87)
Part B A Letter from the Future.....	(93)
Part C Future of Aging.....	(96)
<b>Unit 9 Health</b> .....	(98)
Part A Major Causes of Ill Health.....	(98)
Part B Think You Want to Live Forever.....	(104)
Part C Health Care Cost Reductions.....	(107)

<b>Unit 10</b>	<b>Short Stories</b>	(110)
Part A	Table for Two	(110)
Part B	Bellflower	(116)
Part C	The Lottery Ticket	(120)

# Unit 1 Environment

## Part A Will Renewable Energy Come of Age in the 21st Century?

### I. Background Information

#### *the Kyoto Protocol*

A number of international efforts have been undertaken to reduce greenhouse—gas emissions. The most recent effort occurred in 1997, when representatives from 160 countries met in Kyoto, Japan to negotiate an agreement to reduce worldwide emissions of greenhouse gases. The agreement, known as the Kyoto Protocol, obligates 38 industrialized nations to reduce emissions of six greenhouse gases. Specifically, by 2012, emissions must be an average of about 5 percent below the level of 1990 emissions. The United States, which is responsible for 20 percent of the total global emissions, pledged to reduce its emissions to 7 percent below 1990 levels, while the European Union pledged to reduce its emissions to 8 percent below 1990 levels.

### II. Comprehension at Discourse Level

1. New forms of energy are widely employed in Denmark.
  - 1) Giant, three-bladed wind turbines can be spotted at almost any point when someone travels in Denmark.
  - 2) Wind and biomass are the two main forms of renewable energy used in Denmark.
2. New energy technologies are moving from the experimental stage to commercial reality.
3. The timing of the advances in employing renewable energy is very important to the future of the world.
  - 1) The resistance from the fossil fuel-dependent companies may delay the international efforts to cap emissions of heat-trapping gases.
  - 2) Advances in new technologies will play a key role in new energy systems.
4. The 21st century may be profoundly shaped by the move away from fossil fuels.
5. Many renewable energy resources could be used in the 21st century.

### III. Paraphrase

1. *These gleaming white machines now produce a full 7 percent of Denmark's electricity.*

These shining turbines generate up to 7 percent of the electricity of Denmark.  
“full” is used here to emphasize how great a number is.

e.g. ...a control arm that swings a full 90 degrees.

For a full week, we did not have one square meal.

2. *The rapid transformation of Denmark's energy system during the last ten years may turn out to be the leading wave of something much larger.*

"the leading wave" means the front (or the first) of the steady increase and spread.

3. *The timing of these advances could be of critical importance to the future of modern civilization.*

"timing" is used to refer to the time at which something happens or is planned to happen, or to the length of time that something takes.

e.g. They met to consider the timing of elections...

How is your timing on this job?

4. *International efforts ... are already underway to cap emissions of these gases, ...*

Efforts are being made internationally to set an upper limit on the emission of these gases, ...

5. *The 21st century may be as profoundly shaped by the move away from fossil fuels as the 20th century was marked by the move toward them.*

The 20th century was greatly influenced by employing fossil fuels, while the 21st century may be greatly influenced by abandoning the use of these fuels.

6. *As events in the late 19th century demonstrated, however, underlying markets can shift abruptly, drying up sales of traditional energy and transportation sources and affecting scores of industries.*

"underlying" here means basic or fundamental.

## IV. Key Words and Expressions

1. **derive** *v.* to obtain from; to arrive at by reasoning; to deduce or infer; to trace the origin or development of (a word)

He *derived* some comfort from the fact that he wasn't the only one to fail the exam.

*derive* conclusion from facts

Thousands of English words *derive* (or are derived) from Latin.

2. **local** *adj.* of, special to, a place or district; affecting a part, not the whole

*local* customs (news, time)

Some *local* councils give grants to parents with low incomes.

Members are drawn from all sections of the *local* community...

*Local* people know how severe the weather is here in the mountains.

3. **efficiency** *n.* the quality of being able to do a task successfully and without wasting time or energy

an increase in business *efficiency*

improve the *efficiency* of their reading

The improvements in *efficiency* have been staggering.

4. **reserve** *n.* a quantity of something kept for future use; someone who has not been chosen for a sports team, but who will be asked to play if one of its members cannot play



We have large coal *reserves*...

They do not have the *reserve* funds needed to make these investments.

He is first *reserve* for Liverpool.

*v.* to store, keep back, for a later occasion; keep for the special use of; secure the possession of

*Reserve* your strength for the climb.

The first three rows of the hall are *reserved* for special guests.

*reserve* rooms at a hotel

He was busy adjusting his accounts and *reserving* a plane ticket for himself.

The French *reserved* absolutely the right to decide their own agricultural policy.

5. **prominent** *adj.* very noticeable or important; well-known; sticking out or sticking up

Occupying a *prominent* place in the room is a blackboard.

There was one *prominent* advertisement, among three pages of other ads.

She has access to some very *prominent* people.

I think my nose is too *prominent*.

6. **come of age** to reach a stage of development at which people accept is as being important, valuable etc.; to reach the age of adulthood

It was during this period that the motives really *came of age* as a creative art form.

Recycling is an issue that *has come of age* in Britain in the last decade.

Miss Alice Brown *came of age* on July 2, 1999.

## V. Key to the Exercises

### Part II While-reading

#### Reading Comprehension

1. 1) D 2) A 3) C 4) D 5) B 6) B

2. 1) Quiet and clean.

2) They belong to different people.

3) To replace fossil fuels.

4) The air pollution would increase.

5) In a way not fully known.

#### Vocabulary

1. 1) h, k 2) i 3) b 4) a, c 5) d 6) e 7) f 8) g

2. 1) spot *n.* (地)点 *v.* 定位

2) peak *n.* 山峰 *v.* 到达最高点

3) cap *n.* 帽(盖)子 *v.* 覆盖

4) link *n.* 联系, 连接物 *v.* 连接

5) position *n.* 位置 *v.* 安置(放)

6) shape *n.* 形状 *v.* 形成, 使定型

7) mark *n.* 标志 *v.* 标志, 记录

8) figure *n.* 数字, 图 *v.* 出现; 估计

3. 1) d 2) g 3) a 4) b

5) c 6) h 7) f 8) e

4. 1) gleaming 2) experimental

3) renewed 4) conventional

- |             |              |               |             |
|-------------|--------------|---------------|-------------|
| 5) enormous | 6) critical  | 7) underlying | 8) underway |
| 9) underway | 10) profound | 11) massive   |             |

### Use of English

- |                 |            |              |               |                 |
|-----------------|------------|--------------|---------------|-----------------|
| 1) dramatically | 2) Global  | 3) concluded | 4) unless     | 5) catastrophic |
| 6) flooding     | 7) coastal | 8) species   | 9) extinction | 10) frequency   |

### Translation

1. 均为课文原句，故略。
2. 1) Natural gas has converted from liquid into gas when burning.  
2) It is just incredible/unbelievable that she turns out to be 60 years old.  
3) Fishers release a large amount of fish seeds into the lake at this time of the year.  
4) What on earth has played a key role in high-tech?  
5) People draw on the energy from rubbish as renewable energy source.

## VI. Translation of the Text

### 可再生能源将在 21 世纪充分发展吗？

现在乘火车穿越丹麦，一个小而整洁、拥有大片沃土的国家，你将目睹一幅独特的风景。在旅途中的任何地方，你至少可以见到一两架巨大的三叶风轮机，它们在微风中缓缓转动，安静而又清洁地把缕缕来风转化成电能。这些闪闪发光的白色机器可生产丹麦目前用电的 7%。

和传统发电厂不同，丹麦的风轮机既不属于大的私人公司，也不属于公共公司，它们归风车所在地的农户或农业合作社所有。风能机带来的收入通常直接流入当地社区、风能机的生产者、以及提供维护服务的公司。丹麦也利用一种被称之为生物能的能源（来自植物的生物原料）。小规模、本地发电厂用稻草和其他一些农业废料来发电和给本地取暖提供热水。

丹麦能源系统在最近十年的迅速转化被证明是某一非凡事物的引导潮流者。在世界各地，不依赖煤、石油和天然气等矿物燃料的新能源技术正在从实验室走向市场。太阳能、风能和其他一些可再生能源正越来越多地以前所未有的高效率被转化成有益的能源形式。尽管这些新技术提供的能源还不足现今世界能源供给的 1%，但它们正飞速向前发展。

这些进步的适时出现对现代文明的未来可能是极为重要的。大多数科学家相信，依赖于矿物燃料的能源系统不可能再支撑 100 年。根据几项最近的、基于已探明石油储量的估计，石油生产将在 21 世纪的头 10 年到 20 年间开始下滑。

即使有另外的储藏被探明，很多科学家仍认为，在未来的数十年中继续依赖矿物燃料作为主要能源，将会把上百亿吨二氧化碳和其它一些不散热气体排放到大气层中。国际世界正努力着手限制这些气体的排放，因为很多科学家把这些气体和全球变暖（地表温度的上升）联系在一起。1997 年的《京都草约》就是这种努力的一例。但是，那些依赖矿物燃料的公司的反限制努力可能会拖延此《草约》的批准和执行。

电子、软件，还有合成材料上的进步有可能在新的能源科技中起关键作用。硅半导体

芯片，一种刚出现不到 40 年的技术，已被应用到几乎每个工业领域。电子仪器处理能力的提高和体积的缩小使更有效地控制几乎所有能源装置成为可能，从而开创了一个新的生产、使用以及保存能源的方式。比如说，利用最新的半导体芯片，可以精确而廉价地安装风能机的风叶，最大限度地提高其工作效率。化学和材料科学上的发展也可能为未来一些年的发展提供突破口，从而有可能创造出新一代的高级轻型材料。

20 世纪是以人类使用矿物燃料而在历史上写下浓墨重彩的一笔。同样，21 世纪可能会以告别这种燃料而意义深远地改写历史。但大多数科学家相信，一种新的能源系统需要几十年来发展壮大。对现有能源系统的投资耗费巨大，创建一个新的亦然。然而，正如 19 世纪末期的历史事件所揭示的那样，主体（潜在）市场很可能一朝即变，导致传统能量和运输资源的销售枯竭，从而影响众多的行业。有些国家整个国家的经济和政治实力可能由此提高；要么，在另一种情况下，一些依赖石油生产的国家可能被急剧削弱。国家、产业、城市、家庭和生活都将以一种不可完全预知的方式被重塑。

各种可再生的能源可以在 21 世纪大显身手。这些既包括某些古老的能源，如风能和太阳能，也包括一些相对较新的能源，如燃料电池。还有很多种其他能源，包括地热、生物能、海洋能，也可能在世界未来的能源系统中举足轻重。

## **Part B Greenpeace Campaign**

### **I. Background Information**

#### **1. *Greenpeace***

An international environmental organization dedicated to preserving the earth's natural resources and its diverse plant and animal life. The organization campaigns against nuclear weapons testing, environmental pollution, and destructive practices in fishing, logging, and other industries.

Greenpeace was founded in Vancouver, British Columbia, Canada, in 1971 by members of the Don't Make a Wave Committee, a small group opposed to nuclear weapons testing by the United States military in Alaska. The group renamed itself Greenpeace to reflect the broader goal of creating a green and peaceful world.

Greenpeace has about 3 million dues-paying members and more than 40 offices in 30 countries. Its international headquarters are in Amsterdam, Netherlands.

#### **2. *Temperature scales***

Five different temperature scales are in use today: the Celsius scale, known also as the Centigrade scale, the Fahrenheit scale, the Kelvin scale, the Rankine scale, and the international thermodynamic temperature scale. The Celsius scale, with a freezing point of  $0^{\circ}\text{C}$  and a boiling point of  $100^{\circ}\text{C}$ , is widely used throughout the world, particularly for scientific work, although it was superseded officially in 1950 by the international temperature scale. In the Fahrenheit scale, used in English-speaking countries for purposes other than scientific work and based on the mercury thermometer, the freezing point of water is defined as  $32^{\circ}\text{F}$  and the boiling point as  $212^{\circ}\text{F}$  (see Mercury). In the Kelvin scale, the most commonly used thermodynamic temperature scale, zero is defined as the absolute zero of temperature, that is,  $-273.15^{\circ}\text{C}$ , or  $-459.67^{\circ}\text{F}$ . Another scale employing absolute zero as its lowest point is the Rankine scale, in which each degree of temperature is equivalent to one degree on the Fahrenheit scale. The freezing point of water on the Rankine scale is  $492^{\circ}\text{R}$ , and the boiling point is  $672^{\circ}\text{R}$ .

In 1933 scientists of 31 nations adopted a new international temperature scale with additional fixed temperature points, based on the Kelvin scale and thermodynamic principles. The international scale is based on the property of electrical resistivity, with platinum wire as the standard for temperature between  $-190^{\circ}\text{C}$  and  $660^{\circ}\text{C}$ . Above  $660^{\circ}\text{C}$ , to the melting point of gold,  $1063^{\circ}\text{C}$ , a standard thermocouple, which is a device that measures temperature by the amount of voltage produced between two wires of different metals, is used; beyond this point temperatures are measured by the so-called optical pyrometer, which uses the intensity of light of a wavelength emitted by a hot body for the purpose.

### 3. *Montreal Protocol*

In 1987 the Montreal Protocol, a treaty for the protection of the ozone layer, was signed and later ratified by 36 nations, including the United States. A total ban on the use of CFCs during the 1990s was proposed by the European Community (now called the European Union) in 1989, a move endorsed by US President George Bush. In December 1995 over 100 nations agreed to phase out developed countries' production of the pesticide methyl bromide, predicted to cause about 15 percent of ozone depletion by the year 2000.

## II. Paraphrase

### 1. *...and in the meantime little action is being taken to address the problem.* (L8)

Here "address" means to do something about a particular problem, especially with the aim of solving it.

### 2. *But industry already has around four times amount of carbon...* (L25)

"Around" means approximately or about. e.g.: weighed around 30 pounds; around \$1.3 billion in debt.

### 3. *...every dollar spent on new oil exploration for oil which cannot be used is a dollar not spent on the real solutions to climate change:...* (L40-L41)

"which can not be used" is an attributive clause, modifying the preceding word "oil".

### 4. *cornucopia*

(Greek Mythology) the horn of the goat that suckled Zeus, which broke off and became filled with fruit. In folklore, it became full of whatever its owner desired.

## III. Key to the Exercises

1. 1) B 2) D 3) A 4) D 5) B 6) C

2. 1) To save our planet/earth. 2) To give them up gradually.

3) To develop renewable energies. 4) Greenfreeze technology.

## VI. Translation of the Text

### 绿色和平组织的环保攻势

绿色和平组织已经认定全球性的气候变化是对地球的最大威胁之一。

各国政府和科学家们也都认同这一问题的真实性和严肃性。在去年召开的关于气候问题的东京峰会上，工业国家至少白纸黑字地同意减少对大气层中二氧化碳和其他温室气体的排放。然而，事关协议成败的关键细节仍在协商之中。同时，也几乎没有采取任何实际行动来解决这一问题。

因此，绿色和平组织已呼吁各国政府直面责任，并抓紧解决这一问题。拖延得愈久，为避免所谓的温室气体对地球的危害而必须采取的行动，其冲击就会愈加猛烈。

各国政府应该在一条通往全新的能源方向的道路上起领导作用，这种发展方向以可再生能源为基础，如风能和太阳能。但眼下很多政府却在用纳税人的钱去扶持一些公司的项目，这些项目动辄耗费数十亿美元用于煤、石油和天然气等破坏气候的石化燃料的发展。

科学家们估计，我们只能排放一定量的碳到大气层中，否则，就会跨越气候变化的安全线。气候变化会由此变得如此迅速，以致生态系统无法进行自我调节。绿色和平组织确信，摄氏 1 度的气温上升是可以允许的绝对最高线。在这一限度内，我们可以排放的碳是可以计算出来的，在接下来的 100 年间大约介于 1 125 亿吨到 3 375 亿吨之间。

但在现有石油、煤和天然气的储量中，工业可排放的碳已经是这一量的 4 倍，超过 10 000 亿吨。如果我们想避免危险的天气变化的话，这就意味着 3/4 已探明的石油、煤和天然气不能被使用。

如果我们继续按现有水平燃烧石化燃料，摄氏 1 度的安全限度将仅在 40 年即会达到。这就是我们为什么立即着手减少二氧化碳的排放并逐步淘汰石化燃料的原因。

仅仅是石油公司，就已探明了足够引发危险气候变化的石油储量，但他们还在寻找更多的石油。而且一旦他们在勘探中投了资，自然就不准备放弃开采和销售的权力。这对气候的影响可以说是灾难性的。

换句话说，我们正处于第二次世界石油危机中。但 19 世纪 70 年代是缺油，而这一次的问题是，我们拥有太多的石油。

同时，每多花一美元在勘探不能使用的石油上，就是少花一美元在寻求真正解决气候变化的方法上：一种向可再生能源的转化，如风能和太阳能。

因此，绿色和平组织正竭力反对新的石油勘探。我们正竭力让石油工业停止寻找更多的石油。对它们的使用我们再也不堪目睹，并且，要让他们把投资转移到可再生能源上来。我们正全力让两个边缘地区的石油勘测停下来——从北阿拉斯加的北冰洋地区到爱尔兰、苏格兰和挪威的北部和西部的蛮荒未化的大西洋边界。

绿色和平组织确信可以完全改变提供未来能源需求的方式。

我们再也不能把石化燃料当成未来能源的主体。相反，我们必须做出变革来面向未来，到时候将由清洁的、可再生能源来满足我们的能源需求。因此，我们正呼吁在可再生能源上进行投资，呼吁扫除那些设置在通往可再生能源道路上的障碍。

最主要的温室气体是二氧化碳。但同样有破坏性的、并且被《京都公约》明确限制的还有氢氟碳。近些年来氢氟碳被广泛用来取代对臭氧层有破坏作用的氯氟碳，后者按照蒙特利尔公约正被逐步淘汰。做为保护臭氧层努力的一部分，绿色和平组织发展了绿色冷冻技术，这是一种对臭氧层和气候都无危害的制冷系统。绿色和平组织希望这种办法能代替氢氟碳冷冻技术，在世界各地得到广泛的应用。

## Part C How Big Is the Earth?

### I. Background Information

#### *Malthus*

Malthus, Thomas Robert (1766—1834), British economist, born near Guildford, Surrey, England, and educated at Jesus College, the University of Cambridge. Malthus became curate of the parish of Albury in Surrey in 1798 and held this post for a short time. From 1805 until his death, he was professor of political economy and modern history at the college of the East India Company at Haileybury.

Malthus's main contribution to economics was his theory of population, published in *An Essay on the Principle of Population* (1798). According to Malthus, population tends to increase faster than the supply of food available for its needs. Whenever a relative gain occurs in food production over population growth, a higher rate of population increase is stimulated; on the other hand, if population grows too much faster than food production, the growth is checked by famine, disease, and war. Malthus's theory contradicted the optimistic belief prevailing in the early 19th century, that a society's fertility would lead to economic progress. Malthus's theory won supporters and was often used as an argument against efforts to better the condition of the poor.

### II. Paraphrase

#### 1. ...*which contained a triage list*:... (L39)

"triage" means classified according to type or characteristics.

#### 2. ...*never for good*. (L88)

"for good" means permanently, finally. It is the same as for good and all. e.g.: He says he is leaving the country for good.

### III. Key to the Exercises

1. 1) B 2) C 3) B 4) C 5) C 6) D

2. 1) By counting the number of deer in it.

2) People simply avoided it.

3) More criticism than any other thinkers.

4) The end of the world/a big famine is coming near.

5) By raising food production per square unit.

## VI. Translation of the Text

### 地球有多大

任何国家的野生动物学家都可以告诉你，一个指定地区能养活多少头鹿——有多少嫩草可供它们食用，而不致于妨碍树木的再生，不致于让它们在冬天忍受饥饿。他也能计算出某一地区能供多少头狼生活，部分是通过核算鹿的数量，由此类推，食物链上下交错。它还不是一门真正意义上的科学，但却与之相当接近，至少和计算地球能供养多少人口相比较时是如此。后者是一个任何稍有常识的人都惟恐避之不及的领域。

试想一下其中的艰难吧。人和鹿不一样，人几乎可以食用任何东西，并在他们所选择的水平下生活。猎人部落每人每天只需 2 500 卡路里热量，而现代美国人的需求量则是他们的 7 倍。和鹿不一样，人类可以从数千里之外进口他们所需的东西，能够设计新的办法，来做那些古老的事情。如果人像鹿一样需要食草维生的话，我们能杂交出新的植物品种，能在收获的高峰期冷藏或者晒干鲜嫩幼苗，改变植物基因，并竭力宣传枫树苗的优点，直到每个人都认同为止。变数是如此之大，以致专业的人口学家也很少费心去计算地球的承载能力。人口学家 Joel Cohen 在他的专著《地球能养活多少人口》中报道，在最近两届美国人口协会的会议中，200 多位专题讨论者中没有一个人谈论地球的承载能力。

但这一难题并没有使其他一些思想家退却。毕竟，这是一个全世界共同的难题。柏拉图，欧里庇得斯，还有波里庇得斯都曾担心如果人口持续增长，我们将会断粮。多个世纪来，总有一些经济学家、环境学家、各种各样的狂热者、怪人都曾做出或可怕或悲观的判断。当然，其中最有名的是托马斯·马尔萨斯。他在 1798 年撰文称，呈几何增长的人口将很快使食品供不应求。尽管他后来改变了这一想法，并重写了这篇著名论文，但人们记住的却是它的原始版本。马尔萨斯从此遭到人们的鞭挞。很少有其他作家在如此多的地方受到批判。不仅保守主义者把他的名字当成荒唐的恐慌主义的代名词，卡尔·马克思甚至把他的文章称为“对人类的诽谤”。弗里德里希·恩格斯认为，“我们永远不用担心会出现人口过剩。”毛泽东甚至点名攻击马尔萨斯，还补充到：在世界上的一切中，人是最宝贵的。

每一代新的马尔萨斯主义者都做出末日即将来临的预测，每一次都被证明是错误的。19 世纪 60 年代目睹了马尔萨斯恐慌主义的高潮。威里尔姆和保尔·帕德克在 1967 年出版了一本名叫《饥荒》的书，其中有一个分类记录：“埃及，不可救药……突尼斯，应接收食物救济……印度，不可救药。”几乎与此同时，保尔·恩里克在他的畅销书《人口炸弹》中写道：“供养整个人类的战斗结束了。19 世纪 70 年代，世界将遭遇饥荒——数以亿计的人将会死于饥饿。”联系到整个世界当时正处在石油危机的阴影中，一切似乎显得确实确实，不容置疑。

但事情的发展并非如此。印度养活了自己。美国还在向世界各地出口剩余粮食。正如精明的哈佛大学社会科学家阿玛提亚·圣所指出的那样，“以稳定的美元作价格参照，食品总的来说不仅比马尔萨斯时代更便宜了，即使在最近几十年价格也是越来越低”。换句话说，也就是迄今为止，地球还是或多或少养活了我们。虽然还有太多的人忍受饥饿（60% 的南亚儿童因缺少营养而发育不良），但由于绿色革命的成功，无论是总的饥民人数还是百分比在近几十年都下降了，粮食产量自第二次世界大战后已翻了三番，甚至超过了人口增长



的速度。我们可能是巨人，但我们是聪明的巨人。

如此说来马尔萨斯又错了。一而再，再而三，错误的总是他。从没有其他的预言家曾如此多次地被证明其错误。眼下，他的声望降到了特低点。一群科技乐观主义者确信，恰恰是因为人口数量上的增长，人类将得以继续提高自己的生活水准。这个群体的思想来源于一个名叫伊斯特·布斯拉普的杰出的丹麦科学家——一个反马尔萨斯者，曾在 1965 年据理力争，认为那位悲观的牧师是在与事实背道而驰。布斯拉普认为人口愈多，就会有愈多的进步。以农业为例：她指出，最早的农民都是刀耕火种者，他们可能会在一块土地上耕种 1 至 2 年，然后又迁往他处并数十年不归。然而，随着人口的增长，他们必须频繁回到同一块土地耕耘。这就意味着土壤硬化，肥性耗竭，杂草丛生。但新问题带来了新办法：锄头，粪肥，混合肥料，灌溉以及多种作物轮流耕作。布斯拉普还说，即便在本世纪，由于因实际需要而引发的发明，“农作物的精耕细作取代了粗耕粗作体系”，从而提高了食物生产的效率。

布斯拉普这些严谨的辨例激发了一批大胆的推广者，他们指出，尽管人口增长了，但人们的生活水准还是在世界各地得到提高。朱利安·西蒙坚持认为，实际上，人口增长给经济带来的最重要的好处是有益知识的积累。今年早些时候去世的朱利安是所谓的博学者中最富盛名的一位。我们可能会用尽所有的铜，管它呢？短缺的现实会导致其替代品的发明创造，“推动我们进步的主要动力是我们的智慧积累，而缺乏想象力则是制动器”。西蒙写道，“——富于技巧的，充满活力和蓬勃向上的人，才是最终资源，他们会运用自己的意志和想象力为自己谋取利益，自然，也就会势在必然地为所有人谋得福利”。

西蒙和他的持相同观点者成功的原因是基于这样一个事实：迄今为止，他们一贯正确。世界的发展正如他们所料。印度没有饥饿。食品依然便宜。但马尔萨斯从未离我们而去。我们可能会过于庞大的想法只能在目前被证明是错误的——但从未得到一劳永逸的证明。我们随时可能处身于一个特殊时代的门口，到那时布斯拉普所描述的一切技巧将不再管用。当人口从 7.5 亿倍增到 15 亿时，马尔萨斯是错误的；当人口由 15 亿倍增到 30 亿时，马尔萨斯是错误的；当人口从 30 亿翻番到 60 亿时，马尔萨斯是错误的；50 年后呢，马尔萨斯仍然会是错误的吗？