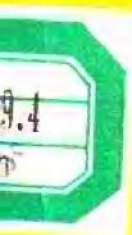


当代 科技 英语 文选

主 编 陶亮采 吴力新

SELECTIVE
SCIENCE REPORTS

机 械 工 业 出 版 社



当代科技英语文选

主编 陶亮采 吴力新
编者 钟庆伦 张 政



机械工业出版社

(京)新登字 054 号

本书围绕当代科技发展主题,从最新国外原版材料中精选 100 篇文章,内容涉及领域包括人才、教育、医学、环境保护、工程技术、农业生产、科学新闻和新课题等各个方面。本书配有注释和生词表,是语言学习的好材料。既可作为《当代科技英语教程》的辅助性阅读材料,又可单独使用。

读者对象:高等院校师生、自学科技英语者、参加晋级考试及涉外工作的科技人员。

图书在版编目(CIP)数据

当代科技英语文选/陶亮采,吴力新主编. —北京:机械工业出版社,1993.8

ISBN 7-111-03642-5

I. 当…

II. ①陶… ②吴…

III. 科学-技术-英语-选集

N. H319.4

编者 钟庆伦 张 政

责任编辑:何文军 版式设计:胡金瑛

封面设计:申 平 责任校对:王中玉

*

机械工业出版社出版(北京阜成门外百万庄南街一号)

邮政编码:100037

(北京市书刊出版业营业许可证出字第 117 号)

河南洛阳豫西印刷厂印刷

新华书店北京发行所发行·新华书店经售

*

开本 787×1092 V_{16} ·印张 7 $\frac{1}{2}$ ·字数 175 千字

1993 年 8 月洛阳第 1 版·1993 年 8 月洛阳第 1 次印刷

印数 0 001-6 500·定价:5.80 元

*

ISBN 7-111-03642-5/G·215(X)

前 言

在科学技术高速发展的今天,新课题、新发现、新技术、新产品犹如雨后春笋,日新月异,层出不穷。然而,当前高校学生,尤其是理工科大学生,在从普通英语向专业英语过渡阶段,尚缺乏一套可以反映近年来世界科技信息的系统教材。为适应这一需要,我们编写了《当代科技英语教程》和《当代科技英语文选》。两书素材选自“美国之音”供国际交流的广播节目“科学报道”(Science Report)。《教程》按内容类别分 20 个单元,共收入原文 60 篇,并配以注释、练习和主课文的参考译文等,可用作精读教材。《文选》则精选原文 100 篇,按照播出日期先后顺序排列,可作辅助性泛读材料。

两书语言地道,措辞简洁,深入浅出,内容广泛,涉及领域既包括工业、农业、教育、医学等方面的基础学科,又不乏环境保护、航天、遗传工程等新兴学科,同时编入部分最新科学新闻,使该书融知识性与趣味性于一体。书中众多学说均具有科学启蒙意义,同样有助于广大科研人员和自学者提高阅读理解和翻译水平。

书中部分文章曾分别发表于 1988 至 1993 年的《世界科技译报》上。但在编写过程中,为配合教学特殊需要,该部分文章的参考译文一般采用直译,并对科技英语中常见术语与疑难点作了扼要的注释。

两书编写过程中,得到美籍语言专家埃弗雷斯特·梅茨勒(Everest Metzler)夫妇的热情帮助。他们精心审阅了全部书稿并提出了宝贵意见。同时,洛阳炼油设计院的徐海燕女士也参与了文字整理工作,在此一并致谢。

由于时间仓促,加之水平有限,书中不当之处仍在所难免,请读者不吝指教。

编 者

1993 年 7 月

CONTENTS

1. A Biological Clock	4
2. A Wall Built along the Hillside	2
3. The Song of the Humpback Whale	3
4. Disputes about Animal Tests	4
5. What Made Them Geniuses?	5
6. How the Wasps Attack the Beetles	6
7. Chronic Fatigue Syndrome	7
8. Pollution in Antarctica	8
9. In Search of Planets outside Our Solar System	9
10. Was Robert Peary the First Person to Reach the North Pole?	10
11. Can Paper Last a Long Time?	11
12. In the World of Ants	12
13. Phobos I and Phobos II	13
14. Underground Drip Irrigation	14
15. A New Birth Control Vaccine	15
16. Research Balloons	16
17. Smokeless Cigarettes	17
18. The Airborne Arctic Stratospheric Experiment	18
19. A Computer Virus	19
20. The Monarch Butterfly	20
21. The Reuse of Irrigation Water	21
22. Beekeeping	22
23. Superconductive Materials	23
24. Biological Control for the Cassava Hornworm	24
25. Extremely Small Machines	25
26. The Fate of Smokeless Cigarettes	26
27. Sunspots	27
28. How Rhinoviruses Invade the Body	28
29. How to Make a Simple Microscope	29
30. Five Days in an Experimental Glass Building	30
31. Manic Depression	31
32. Fighting Air Pollution	32
33. Sensitive Corals	33
34. Pluto's Atmosphere	34
35. Bagasse Feed	35
36. Solar-powered Refrigerators	36
37. Conservation Reserve Program	37
38. Developing New Techniques to Find Problems in Older Planes	38

39. High-definition Television	39
40. Choose Your Crops	40
41. Another Season of Exploration in Antarctica	41
42. International Center for Tropical Agriculture	42
43. The Ant Man	43
44. New Findings about How Genes Work	44
45. Hubble Telescope and the Moon Telescope	45
46. Natural Farming	46
47. Hypothermia	47
48. A Comprehensive Utilization of Azolla	48
49. National Research Council	49
50. Even Young Children Can Learn a Great Deal	50
51. Rooftop Gardens	51
52. Hearing Loss	52
53. The Supply and Demand of Natural Materials	53
54. Urinary Incontinence	54
55. The Tanzania Oil Press	55
56. Cures for Environmental Problems	56
57. Rabbit Waste	57
58. New Kinds of Rice	58
59. Testing a New Way of Growing Bamboo Plants	59
60. The Dangers of Low Amounts of Radiation	60
61. Global Warming	61
62. Is Asbestos a Health Threat?	62
63. A Simple Earth-moving Device	63
64. New Rules Governing Food Products	64
65. How to Reduce Hunger	65
66. Biotechnology	66
67. Waterweeds	67
68. US7	68
69. Tuna Fish and Dolphins	69
70. Bicycle Centers	70
71. Ectopic Pregnancies	71
72. The Mysterious Flowing Sand	72
73. Research on Type One Diabetes	73
74. The Influence of Light on the Human Body Clock	74
75. Customs at New Year's Day	75
76. Treating Food with Low-level Radiation	76
77. The African Dust and Amazon Soil	77
78. The Map of the CD4 Protein	78
79. Geologists' New Idea	79
80. A Man-made Kind of Photosynthesis	80
81. Useful Lessons Drawn from the Wheeled Tool Carrier	81

82. A New Way of Producing Electricity	82
83. American Peanut Production in 1991	83
84. Ethanol: A Clean and Cheap Fuel	84
85. How to Fool the Trees	85
86. Eager Beaver	86
87. How Researchers Get the Rare Things They Study	87
88. Is the Biosphere Project a Success?	88
89. A Robot Will Explore the Mysteries of a Volcano	89
90. The Explosion of Mount Pinatubo Affects the World's Weather	90
91. Cover Crops	91
92. The X30 Space Plane	92
93. The Main Reason People Get Fat	93
94. Using Animal Organs for Transplant Operations	94
95. Protect the Health of Pregnant Women	95
96. Rain Forest Exhibits	96
97. Genetically-changed Animals	97
98. The Buffalo	98
99. A New Plan to Vaccinate American Children	99
100. For the Benefit of Deaf Children	100
GLOSSARY	101

1. A Biological Clock

(May 6, 1988)

Every living thing has what scientists call a biological clock that controls behavior. The biological clock tells plants when to form flowers and when the flowers should open. It tells insects when to leave the protective cocoon and fly away, and it tells animals and human beings when to eat, sleep and wake. It controls our body temperatures, the release of some hormones¹ and even dreams.

Events outside the plant and animal affect the actions of some biological clocks. Scientists recently found, for example, that a tiny animal called the Siberian hamster changes the color of its fur because of the number of hours of daylight. In the short days of winter, its fur becomes white. The fur becomes gray brown in color in the longer hours of daylight in summer².

Inner signals control other biological clocks. West German scientists found that some kind of internal clock seems to order birds to begin their long migration flights two times each year. Birds prevented from flying become restless when it is time for the trip³, but they become calm again when the time of the flight has ended.

A mix of outside and internal events control some biological clocks. Scientists say such things as heartbeat and the daily change from sleep to waking take place because of both external and internal signals.

Scientists say they are beginning to learn which parts of the brain contain biological clocks. A researcher at Harvard University, Martin Moorhead, said a small group of cells near the front of the brain seems to control the timing of some of our actions. These cells tell a person when to awaken, when to sleep and when to seek food. Scientists say there probably are other biological clock cells that control other body activities.

Dr. Moorhead is studying how our biological clocks affect the way we do our work. For example, most of us have great difficulty if we often must change to different work hours. It can take many days for a human body to accept the major change in work hours. Dr. Moorhead said industrial officials should have a better understanding of biological clocks and how they affect workers. He said such understanding could cut sickness and accidents at work and would help increase a factory's production.

Notes

1. the release of hormones 激素的分泌

2. The fur becomes gray brown in color in the longer hours of daylight in summer. 夏天日照较长, 其毛皮

转换成灰褐色。

3. Birds prevented from flying become restless when it is time for the trip. 鸟儿到了迁徙季节而不能飞走, 就会变得烦躁。

2. A Wall Built along the Hillside

(May 16, 1988)

Farms on steep hills can be damaged badly by heavy rains. Rainwater flowing down the hillside can carry away much valuable soil and can damage buildings. A wall built along the side of the hill can help protect the land. It helps hold the earth in place¹. It directs flowing rainwater away from buildings and valuable crop areas. It also catches some of the dirt being carried away by the water.

Often a farmer will use cement to build the wall. Cement will hold together the stones and other material in the wall, but cement is costly in some areas. A farmer may not have enough money to buy it. The Caribbean Appropriate Technology Center² on Barbados has an idea to help solve this problem. It has published a short report about building walls without cement. It says the method has worked successfully for many years on the Caribbean nation of Saint Vincent. The idea is simple—Just build a wall with large stones and dirt.

First, take a long piece of string or thin rope. Stretch it tightly on the ground along the line where you plan to build the wall. The string serves as your guide to keep the wall straight. Next, dig a hole along this line. The hole should be about 25 centimeters deep and about 30 centimeters across. Fill the bottom of the hole with stones. The stones should be large, a little bigger than the cement blocks used to make houses. Their sides should be flat, not rounded. Fill any space between stones with smaller stones, but do not place stones on top of each other³. Cover this layer of stones with a small amount of dirt. Push the dirt down tightly on top of the stones and all around them. Put down another layer of stones. Again cover and pack with more dirt, then more stones. And again more dirt. Do not use too much dirt. The dirt should not be used to make the wall taller; it is used only to help hold together the stones. Be careful about the shape of the stones. Use only those that fit closely together⁴. Put smaller stones in spaces where the larger stones do not fit well, but make sure the large stones press against all the smaller ones.

The Caribbean Appropriate Technology Center on Barbados says a carefully built wall of this kind will last 100 years.

Notes

1. It helps hold the earth in place. 它有助于保持土壤。

2. the Caribbean Appropriate Technology Center 加勒比海适用技术中心
3. Fill any space between stones with smaller stones, but do not place stones on top of each other. 石块与石块之间的空隙都用较小的石块填满,但是,别把石块一块块地摞起来。
4. Use only those that fit closely together. 只选用那些互相镶得上、嵌得紧的石块。

3. The Song of the Humpback Whale

(June 10, 1988)

The singing of birds is among the most common songs in nature. We all hear these songs from time to time, but few of us have had the chance to hear one of nature's unusual songs, the song of the humpback whale.

Scientists do not know how humpback whales produce their songs, but scientist Rodger Pain has an idea. Mr. Pain has studied humpback whales for many years. He thinks the animals sing by moving air through passageways in their heads¹. The whale songs are very long. One song can last for half an hour. Even the shortest is about ten minutes long. Here is how part of that song sounds: yeah—unnn—herrrr—unnn—unnn.

Rodger Pain recently produced a record album based on the song of the humpback whale. He said he wanted to show how this wild, strange sound is related to human music. First, Mr. Pain recorded the whale song, then a music expert wrote down the song in the form a human could understand. Finally, musicians played the song. It sounded like jazz.

All whales in one area of the ocean sing the same song. As months pass, the song changes very slowly. After several years, the song is completely different. Scientists say the songs may be a kind of communication. Some believe the singing whales are marking the limits of their territory. Others believe the songs must be a mating call².

A few years ago the song of the humpback whale was in the news. The story began when a whale entered the harbor at San Francisco, California. Instead of returning to the ocean, the lost whale swam up the Sacramento River. It did not stop until it was more than one hundred kilometers inland. The whale ended up in a part of the river that was not a good home for a whale. The river there was not very wide or deep, and it did not contain the food which humpback whales need to survive. Scientists tried many methods to force the whale back to sea. Finally, they played recordings of the song humpback whales make when they are eating. The lost whale listened closely, and it followed the boats playing the song as they led it back to its home in the ocean.

Notes

1. He thinks the animals sing by moving air through passageways in their heads. 他认为这些鲸是运用空气

通过其头部呼吸道来歌唱的。

2. mating call 求偶时发出的鸣叫声

4. Disputes about Animal Tests

(June 29, 1988)

Chimpanzees play an important part in research on the disease Acquired Immunodeficiency Syndrome¹ or AIDS. Chimpanzees are used because their body systems² are so similar to those of humans. The animals are raised for research, but reports say some researchers have considered catching wild chimpanzees for this purpose.

An expert on chimpanzees, Jean Goodall, is concerned about the reports. She says she recognizes the need to use chimpanzees in medical research, but she opposes taking them from the wild. She says this threatens their existence. Jean Goodall believes there were more than one million chimpanzees in the wild at the beginning of this century. Now she says there are no more than seventeen thousand. Other researchers dispute this number. Miss Goodall and other experts discussed the problem in a letter to the British publication *Nature*³.

Chimpanzees are just one kind of animal used in laboratory experiments. Others include mice, rats, monkeys, dogs, cats, pigs and rabbits. Some animals are given diseases which humans suffer, then they are given experimental drugs that might cure the disease. Others are fed substances which humans use, then they are cut open⁴ so scientists can learn how the substance affected them. Many people oppose using animals this way. They say such experiments are cruel, even if the animals do not die. They say animals have rights that should be honored. These supporters of animal rights are very active in the United States. They have succeeded in getting some states to pass laws limiting the use of animals in research. They have succeeded in getting some people to stop buying products that are tested on animals. And they have succeeded in getting some researchers to use less dangerous tests for beauty aids, poisons and other products⁵. These efforts have helped reduce the suffering of laboratory animals.

However, many scientists, including chimpanzee expert Jean Goodall, oppose efforts to stop all animal experiments. They say much of the progress in human health care would not have been possible without animal tests.

Notes

1. Acquired Immunodeficiency Syndrome 获得性免疫缺陷综合症 缩写 AIDS(艾滋病)

2. body system 身体系统

3. the British publication Nature 英国刊物《自然界》
4. Then they are cut open. 然后它们被解剖。
5. beauty aids, poisons and other products 化妆品、毒药和其他产品

5. What Made Them Geniuses?

(July 22, 1988)

People like Galileo, Albert Einstein and Marie Curie were geniuses. Their work helps us understand more about ourselves and our world, but we still do not understand much about them. What made them geniuses? Most researchers agree that high intelligence alone does not make a person a genius. They believe creativity using imagination and facts together in a new way is even more important than intelligence in producing a work of genius¹.

Sometimes one scientist sees the importance of facts which other people thought were not important. This is what happened when German scientist Wilhelm Roentgen was experimenting with cathode rays². He noted a green light on a nearby screen. Other scientists had seen the green light, but they did not investigate it. It did not seem related to what they knew about cathode rays. Roentgen, however, studied the strange light. His studies led him to the discovery of X-rays.

In his book "Frames of Mind", psychologist Howard Gardiner says people have at least seven different kinds of intelligence. One kind helps us think logically. We use this one to solve mathematical problems. Another kind of intelligence deals with words and language. Another with how we see and understand relationship of objects and space around them. Another deals with information from our senses and feelings.

Doctor Gardiner believes a genius thinks by using several kinds of intelligence at once³. For example, Einstein said he would get a special feeling in his fingers when he was close to solving a difficult problem in physics. Another genius, a mathematician Jacques Hadamard, saw pictures in his mind that would help him solve mathematical problems.

Professor Howard Gropper is another psychologist who has studied the way geniuses think when they solve a problem. He notes that geniuses work hard for a long time on one problem but they study the problem from many different sides; they also are able to stop thinking about the parts of the problem they cannot solve immediately; they work on the parts they can solve.

Most researchers agree that hard work prepares the genius for those sudden moments of understanding that often lead to new discoveries.

Notes

1. They believe creativity ... in producing a work of genius. 他们相信以新的方式溶想象与事实于一炉的

创造力甚至比智慧更能造就天才。

2. cathode ray 阴极射线

3. A genius thinks by using several kinds of intelligence at once. 天才是同时利用几方面的智慧来进行思考的。

6. How the Wasps Attack the Beetles

(August 30, 1988)

Researchers in California believe they have found a way to control a beetle that feeds on the eucalyptus tree. The eucalyptus tree is native to Australia¹. It was brought to the United States more than one hundred years ago. Farmers in California grow the trees in straight lines. The trees form a natural fence to help prevent wind damage to fruit trees². The eucalyptus also is valued as firewood. Four years ago another native of Australia arrived in California, but it was not wanted. It was the long-horned borer beetle, and it feeds on the eucalyptus tree. Chemical poisons have little effect on the beetle. This is because the insect lays its eggs under the outer layer of the tree³. A female beetle lays about forty eggs at one time. When the eggs break open, the baby beetles dig into the tree and begin eating. This can stop the natural flow of the nutrient inside the tree⁴, which affects growth. Forty beetles can destroy a eucalyptus tree in a few weeks. This is especially true if there is not much water in the ground.

Southern California has been suffering from a severe lack of rain for the past few months. Scientists say if something is not done soon the beetles could kill most of the eucalyptus trees in the area. Long-horned borer beetles have spread to every part of southern California. They have destroyed as many as 20 percent of the eucalyptus trees on some fruit farms. Without chemical poisons to control the beetles, scientists went back to Australia for a possible cure. There, they found the beetle's chief enemy. It is a tiny wasp called *Singaster Lafidus*. The wasp does not bite humans or animals. It attacks only the long-horned beetle. It attacks with a long, sharp stinger. It forces the stinger through a tree's covering when it discovers a beetle underneath. After stinging the beetle, the wasp lays its eggs. When the eggs break open, the baby wasps feed on the beetle.

Some of these wasps were brought to California from Australia. Tests are being carried out in laboratories while scientists wait for official permission to release the wasps in the field. Scientists say the wasps would have the beetle problem under control within four years after being released.

Notes

1. The eucalyptus tree is native to Australia. 桉树是澳大利亚产植物。

2. The trees form a natural fence to help prevent wind damage to fruit trees. 桉树形成一种有助于果树预防风灾的天然屏障。
3. This is because the insect lays its eggs under the outer layer of the tree. 原来这种昆虫把卵产在树的表皮下面。
4. This can stop the natural flow of the nutrient inside the tree. 这会阻挡树内营养物质的自然流动。

7. Chronic Fatigue Syndrome¹

(September 2, 1988)

American medical researchers believe they have found a strong link between a person's emotions and a disorder that causes extreme tiredness. They say the disorder may be linked more to emotional conditions than to a disease². The disorder is called chronic fatigue syndrome or chronic mononucleosis. It makes a person feel very tired. It also causes pains in the head, muscles or throat. Some victims report having trouble thinking or sleeping.

The new study of chronic fatigue syndrome was needed by Kurt Crunky at an army base medical center in Texas. The findings were published in the Journal of the American Medical Association³. The researchers examined more than one thousand one hundred persons. They tested about 10 percent of them. Some suffered from extreme tiredness. The others did not. The researchers looked for physical causes of the patients' tiredness. They found none. However, they said psychological tests showed clear differences between those who were extremely tired and those who were not. The tests showed that the tired patients were more likely to have emotional problems, such as depression or anxiety. 56 percent of the tired patients suffered from depression. None of the other patients suffered from it. The researchers tested the group for other emotional problems. In all, 80 percent of the tired patients suffered from such problems. Only 12 percent of the others suffered from them. The researchers do not claim a direct link between emotional problems and chronic fatigue syndrome. They said extreme tiredness may result from a disease not yet recognized by scientists. For years doctors had thought that chronic fatigue syndrome was caused by the Epstein-Barr virus⁴. Two studies done last year showed that it may not be responsible. In both studies researchers tested patients' blood for the Epstein-Barr virus. Not all the patients had the virus even though all had signs of chronic fatigue syndrome⁵.

Now researchers at the Mayo Clinic in Minnesota say patients suffering from extreme tiredness should not be tested for the Epstein-Barr virus. They say the test is too costly and provides little useful information.

Notes

1. chronic fatigue syndrome 慢性疲劳综合症

2. They say the disorder may be linked more to emotional conditions than to a disease. 他们说, 这种功能紊乱很大程度上与情感因素有关, 而不像某种疾病所致。
3. the Journal of the American Medical Association 《美国医学协会杂志》
4. Epstein-Barr virus 通称 EB 病毒
5. Not all the patients had the virus even though all had signs of chronic fatigue syndrome. 尽管所有的病人均表现出慢性疲劳综合症的症状, 却不是人人都携带 EB 病毒。

8. Pollution in Antarctica¹

(September 9, 1988)

A private environmental group says activities at American research centers in Antarctica are causing serious pollution. The group has charged that the activities violate American laws and international agreements to protect the environment. The United States and seventeen other nations have research centers in Antarctica. Their activities are governed by the International Antarctic Treaty². The treaty went into effect thirty years ago³.

The United States research centers are operated by the National Science Foundation⁴. The private Environmental Defense Fund⁵ says the National Science Foundation has not done enough to prevent pollution in Antarctica. A report by the group lists several examples. The report says McMurdo Sound⁶ is more polluted than almost any waterway in the United States. The largest American research center in Antarctica is next to McMurdo Sound. The report says Americans put untreated waste products in Antarctic waters. It says they burn other wastes without trapping poisonous smoke or ash, and it says they have not put pollution control devices on machines that produce electric power. The environmental group says these actions would not be permitted anywhere in the United States. They would violate anti-pollution laws.

The report says other countries operating in Antarctica also are polluting the environment there, but it notes that some do a great deal to reduce their pollution. New Zealand and Australia, for example, treat waste water and remove most of their other wastes from the continent.

The National Science Foundation denies that its research centers in Antarctica are violating United States environmental laws, but it admits that many of the report's findings are true. However, the NSF says steps are being taken to improve the situation. For example, it says it has removed one hundred sixty tons of waste metal from Antarctica this year; it has removed more than five hundred containers of waste oil. These materials, it says, no longer are being put in Antarctic waters. The National Science Foundation says it is developing a new environmental protection plan for Antarctica. The agency says it wants to save Antarctica, not ruin it.

Notes

1. pollution in Antarctica 南极洲的环境污染
2. the International Antarctic Treaty 国际南极公约
3. The treaty went into effect 30 years ago. 公约于 30 年前即已生效。
4. the National Science Foundation 国家科学基金会
5. the Environmental Defense Fund 环境保护基金会
6. McMurdo Sound 麦克默多海峡

9. In Search of Planets outside Our Solar System¹

(September 14, 1988)

Astronomers continue to make progress in the search for planets outside our solar system. Two groups reported on this work at the recent meeting of the International Astronomical Union² in Baltimore, Maryland. Astronomers from the center for astrophysics in Cambridge, Massachusetts, reported evidence of a planet orbiting a star ninety light years from earth³. They said their discovery was an accident. The astronomers had been studying the star for seven years. They were following the star's movements as a way to test their instruments. Star movement is affected by any object that may be orbiting it. The larger the object, the larger the unusual movement of the star. So astronomers look for new planets by studying the movements of stars.

One of the astronomers at the Massachusetts center, David Nathan, found that the path of the star he had been studying was not straight. It had a strange movement. Measurements of this strange movement showed that an unseen object was orbiting the star every eighty-four days. Dr. Nathan said the object is big enough to be a planet. In fact, he thinks it is ten times as big as Jupiter, the largest planet in our solar system. The object appears to be as close to its star as the planet Mercury is to our sun. Mercury's temperatures are very hot. Temperatures on the orbiting object would be very hot too. Much too hot, Dr. Nathan said, for life as we know it to exist.

An astronomer from the University of Victoria in Canada also spoke to the Astronomical Union meeting in Baltimore. He gave the latest information on an announcement he made a year ago. In that announcement, he said he had found evidence of several planets outside our solar system. For seven years astronomer Bruce Campbell has been measuring the movement of stars by examining their color. The technique is very exact. Dr. Campbell has measured eighteen stars so far. He found what may be evidence of planets orbiting nine of the eighteen⁴. Dr. Campbell believes this means as many as half the stars in the Milky Way galaxy⁵

may have planets. Some astronomers believe it means every star in the sky may have a planet.

Notes

1. In search of planets outside our solar system 对太阳系以外行星的探索
2. the International Astronomical Union 国际天文学联合会
3. ... reported evidence of a planet orbiting a star ninety light years from earth.报告说,有迹象表明,某个行星在环绕距地球 90 光年的一个恒星作轨道运行。
4. He found what may be evidence of planets orbiting nine of the eighteen. 他已发现这 18 颗恒星中的 9 颗都似乎存在有行星在对它们进行环绕运行的迹象。
5. Milky Way galaxy 银河系

10. Was Robert Peary the First Person to Reach the North Pole?

(September 16, 1988)

History books say American explorer Robert Peary was the first person to reach the North Pole. They say he got there on April 6, 1909. Not everyone agrees, and a new investigation has reopened the debate¹.

Robert Peary began his last voyage to the North Pole eighty years ago. For months he and his crew made their way slowly north over sea and ice. Then for a day they were somewhere near the North Pole, but were they, in fact, standing at the North Pole? Peary did not really say.

After Peary returned to the United States, he met with directors of the National Geographic Society². These men examined written documents from Peary's trip. They ruled that Peary was the first person to reach the North Pole.

Recently Peary's family permitted experts to re-examine some of those documents. The National Geographic Society asked British explorer Warney Herbert to head the new investigation. In his investigation of Peary's North Pole claim, Warney Herbert used the latest scientific information about Arctic weather conditions, currents and ice movement. He found mistakes in Peary's navigational measurements³. He found records of distances traveled that were hard to believe⁴. He found documents that lacked important information. For example, Peary's records lacked details about wind speeds, Arctic weather and ice conditions. Also Peary claimed to have traveled nine hundred fifty kilometers across the Arctic to the North Pole in less than eight days. Mr. Herbert says no other Arctic explorer has ever claimed to have made the trip in such a short time. Mr. Herbert says he was surprised by one thing—Robert Peary left no written records of his activities during the thirty hours he spent in the