

大学英语选修课系列教材

SELECTED READINGS  
IN POPULAR SCIENCE

# 当代科普英语 精粹导读

胡阶娜 编著

南开大学出版社

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## 内容简介

本书是为大学英语选修课设计的一本教材(也可作为课外阅读资料),共八个单元,分别介绍不同的科技领域,包括太空探险、医学突破、机器人科学、基因工程、搜索引擎、纳米技术、水疗以及电脑游戏。这些都是同学们关心的热门话题。

书中所选文章也都是作者所见各个领域中最具趣味性及实用价值的,有的是经典作品,也有的是最新文献。资料来源包括美国国家航空和宇宙航行局、哈佛大学学报、GOOGLE 搜索等各个领域的权威机构或学者(详细名单列于英文前言中)。

作者详细加注,以利同学们快速准确理解原文。并且为每一篇文章写了内容概要,帮助同学们掌握重点及文章主旨。同时还设计了形式多样的配套练习题,检查同学们的阅读理解效果。老师可以选用所列研究课题为同学们布置作业。每一单元还配选一篇拓展阅读资料。

登月英雄阿姆斯特朗曾说:“从我们出生那一刻起,探索就是我们人类的天性。”希望这本书能为读者打开眼界,探索科技世界的奥妙与神奇提供一点灵感。

## Preface

This book is designed as an optional course textbook for college students. It selects readings in different fields of science and technology. The topics are the most popular ones nowadays with Space Exploration, Medical Breakthroughs, Robotics, Genetic Engineering, Google technology, Nanotechnology, Curative Waters and Computer Games. All the articles are the best I have found in the particular field and I hope readers will enjoy them, acquire a lot of knowledge and gain inspiration from them. In each unit, I wrote a summary to help readers understand the text better. In addition, I designed different kinds of exercises to test the readers' comprehension of the texts as well as develop their research abilities. Teachers may also choose them as homework or project assignments.

Moreover, here I want to take this opportunity to express my sincere thanks to the following organizations and individuals for their generosity and support for my book: NASA.gov; Google Inc; Ms. Terry Murphy, Managing Director of *Harvard University Gazette*; Mr. William Cromie, Science Reporter for *Harvard University Gazette*; Mr. Michael Kanellos from CNET news; Prof. Ron Epstein from San Francisco State University; Ms. Ottilia Saxl, CEO of the Institute of Nanotechnology, UK; Mr. Denis Letendre from alive.com; Dr. Avery Kuflik, Dermatologist in New Jersey; Mr. Chris Crawford, author of *The Art of Computer Game Design* and Prof. Sue Peabody from Washington State University.

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# Unit 1 Space Exploration

## Part 1 Text

### The First Men in the Moon

By H. G. Wells

#### Chapter 6

I REMEMBER how one day Cavor suddenly opened six of our shutters<sup>①</sup> and blinded me so that I cried aloud at him. The whole area was moon, a stupendous<sup>②</sup> scimitar<sup>③</sup> of white dawn with its edge hacked out by notches of darkness, the crescent<sup>④</sup> shore of an ebbing tide of darkness, out of which peaks and pinnacles<sup>⑤</sup> came glittering into the blaze of the sun. I take it reader has seen pictures or photographs of the moon and that I need not describe the broader features of that landscape, those spacious ringlike ranges vaster than any terrestrial mountains, their summits shining in the day, their shadows harsh and deep, the gray disordered plains, the ridges, hills, and craterlets, all

---

① shutters: *n.* 百叶窗

② stupendous: *adj.* 巨大的

③ scimitar: *n.* 弯刀, 半月形刀

④ crescent: *adj.* 新月形的

⑤ pinnacle: *n.* 山顶, 顶点



passing at last from a blazing illumination into a common mystery of black. Athwart<sup>①</sup> this world we were flying scarcely a hundred miles above its crests and pinnacles. And now we could see, what no eye on earth will ever see, that under the blaze of the day the harsh outlines of the rocks and ravines<sup>②</sup> of the plains and crater<sup>③</sup> floor grew gray and indistinct under a thickening haze<sup>④</sup>, that the white of their lit surfaces broke into lumps and patches, and broke again and shrank and vanished, and that here and there strange tints of brown and olive grew and spread.

But little time we had for watching then. For now we had come to the real danger of our journey. We had to drop ever closer to the moon as we spun about it, to slacken<sup>⑤</sup> our pace and watch our chance, until at last we could dare to drop upon its surface.

For Cavor that was a time of intense exertion; for me it was an anxious inactivity. I seemed perpetually to be getting out of his way. He leapt about the sphere from point to point with an agility<sup>⑥</sup> that would have been impossible on earth. He was perpetually opening and closing the Cavorite windows, making calculations, consulting his chronometer<sup>⑦</sup> by means of the glow lamp during those last eventful hours. For a long time we had all our windows closed and hung silently in darkness hurling through space.

Then he was feeling for the shutter studs, and suddenly four windows were open. I staggered and covered my eyes, drenched and scorched and blinded by

---

① athwart: *prep.* 横过

② ravine: *n.* 沟壑, 峡谷, 溪谷

③ crater: *n.* 坑

④ haze: *n.* 薄雾

⑤ slacken: *v.* 放慢

⑥ agility: *n.* 敏捷

⑦ chronometer: *n.* 记时计

the unaccustomed splendour of the sun beneath my feet. Then again the shutters snapped, leaving my brain spinning in a darkness that pressed against the eyes. And after that I floated in another vast, black silence.

Then Cavor switched on the electric light, and told me he proposed to bind all our luggage together with the blankets about it, against the concussion<sup>①</sup> of our descent<sup>②</sup>. We did this with our windows closed, because in that way our goods arranged themselves naturally at the centre of the sphere. That too was a strange business; we two men floating loose in that spherical space, and packing and pulling ropes. Imagine it if you can! No up nor down, and every effort resulting in unexpected movements. Now I would be pressed against the glass with the full force of Cavor's thrust, now I would be kicking helplessly in a void<sup>③</sup>. Now the star of the electric light would be overhead, now under foot. Now Cavor's feet would float up before my eyes, and now we would be crossways to each other. But at last our goods were safely bound together in a big soft bale, all except two blankets with head holes that we were to wrap about ourselves.

Then for a flash Cavor opened a window moonward, and we saw that we were dropping towards a huge central crater with a number of minor craters grouped in a sort of cross about it. And then again Cavor flung our little sphere open to the scorching, blinding sun. I think he was using the sun's attraction as a brake. "Cover yourself with a blanket," he cried, thrusting himself from me, and for a moment I did not understand.

Then I hauled the blanket from beneath my feet and got it about me and over my head and eyes. Abruptly he closed the shutters again, snapped one open

---

① concussion: *n.* 冲击, 震荡

② descent: *n.* 降落

③ in a void: 无效地, 无用地

again and closed it, then suddenly began snapping them all open, each safely into its steel roller<sup>①</sup>. There came a jar, and then we were rolling over and over, bumping against the glass and against the big bale of our luggage, and clutching at each other, and outside some white substance splashed as if we were rolling down a slope of snow...

Over, clutch, bump, clutch, bump, over...

Came a thud<sup>②</sup>, and I was half buried under the bale of our possessions, and for a space everything was still. Then I could hear Cavor puffing and grunting, and the snapping of a shutter in its sash. I made an effort, thrust back our blanket-wrapped luggage, and emerged from beneath it. Our open windows were just visible as a deeper black set with stars.

We were still alive, and we were lying in the darkness of the shadow of the wall of the great crater into which we had fallen.

We sat getting our breath again, and feeling the bruises on our limbs. I don't think either of us had had a very clear expectation of such rough handling as we had received. I struggled painfully to my feet. "And now," said I, "to look at the landscape of the moon. But it's tremendously dark, Cavor!"

The glass was dewy, and as I spoke I wiped at it with my blanket. "We're half an hour or so beyond the day," he said. "We must wait."

It was impossible to distinguish anything. We might have been in a sphere of steel for all that we could see. My rubbing with the blanket simply smeared the glass, and as fast as I wiped it, it became opaque again with freshly condensed

---

① steel roller: 钢辊, 钢滚子

② thud: n. 砰击声, 轰的一声

moisture mixed with an increasing quantity of blanket hairs. Of course I ought not to have used the blanket. In my efforts to clear the glass I slipped upon the damp surface, and hurt my shin against one of the oxygen cylinders<sup>①</sup> that protruded from our bale.

The thing was exasperating — it was absurd. Here we were just arrived upon the moon, amidst we knew not what wonders, and all we could see was the gray and streaming wall of the bubble in which we had come.

"Confound it!" I said, "but at this rate we might have stopped at home;" and I squatted on the bale and shivered, and drew my blanket closer about me.

Abruptly the moisture<sup>②</sup> turned to spangles and fronds of frost. "Can you reach the electric heater," said Cavor. "Yes — that black knob. Or we shall freeze."

I did not wait to be told twice. "And now," said I, "what are we to do?"

"Wait," he said.

"Wait?"

"Of course. We shall have to wait until our air gets warm again, and then this glass will clear. We can't do anything till then. It's night here yet; we must wait for the day to overtake us. Meanwhile, don't you feel hungry?"

For a space I did not answer him, but sat fretting. I turned reluctantly from the smeared puzzle of the glass and stared at his face. "Yes," I said, "I am hungry. I feel somehow enormously disappointed. I had expected — I don't know what

---

① oxygen cylinder: *n.* 氧气瓶

② moisture: *n.* 潮湿, 湿气

I had expected, but not this."

I summoned my philosophy, and rearranging my blanket about me sat down on the bale again and began my first meal on the moon. I don't think I finished it — I forget. Presently, first in patches, then running rapidly together into wider spaces, came the clearing of the glass, came the drawing of the misty veil that hid the moon world from our eyes.

We peered out upon the landscape of the moon.

## Chapter 7

As we saw it first it was the wildest and most desolate of scenes. We were in an enormous amphitheatre<sup>①</sup>, a vast circular plain — the floor of the giant crater. Its cliff-like walls closed us in on every side. From the westward the light of the unseen sun fell upon them, reaching to the very foot of the cliff, and showed a disordered escarpment<sup>②</sup> of drab and grayish rock, lined here and there with banks and crevices of snow. This was perhaps a dozen miles away, but at first no intervening atmosphere diminished in the slightest the minutely<sup>③</sup> detailed brilliancy with which these things glared at us. They stood out clear and dazzling against a background of starry blackness that seemed to our earthly eyes rather a gloriously spangled velvet curtain than the spaciousness of the sky.

The eastward cliff was at first merely a starless selvedge<sup>④</sup> to the starry dome. No rosy flush, no creeping pallor<sup>⑤</sup>, announced the commencing day. Only the

---

① amphitheatre: *n.* 圆形剧场

② escarpment: *n.* 悬崖, 断崖, 绝壁, 陡斜坡

③ minutely: *adv.* 详细地, 精密地

④ selvedge: *n.* [纺] 布的织边, 镶边

⑤ pallor: *n.* 苍白

Corona<sup>①</sup>, the Zodiacal<sup>②</sup> light, a huge cone-shaped, luminous haze<sup>③</sup>, pointing up towards the splendour of the morning star<sup>④</sup>, warned us of the imminent nearness of the sun.

Whatever light was about us was reflected by the westward cliffs. It showed a huge undulating plain, cold and gray, a gray that deepened eastward into the absolute raven darkness of the cliff shadow. Innumerable rounded gray summits, ghostly hummocks<sup>⑤</sup>, billows of snowy substance, stretching crest beyond crest into the remote obscurity, gave us our first inkling of the distance of the crater wall. These hummocks looked like snow. At the time I thought they were snow. But they were not — they were mounds and masses of frozen air?

So it was at first, and then, sudden, swift, and amazing, came the lunar day.

The sunlight had crept down the cliff, it touched the drifted masses at its base and incontinently came striding with seven-leagued boots towards us. The distant cliff seemed to shift and quiver, and at the touch of the dawn a reek of gray vapour poured upward from the crater floor, whirls and puffs and drifting wraiths of gray, thicker and broader and denser, until at last the whole westward plain was steaming like a wet handkerchief held before the fire, and the westward cliffs were no more than refracted<sup>⑥</sup> glare beyond.

"It is air," said Cavor. "It must be air — or it — would not rise like this — at the mere touch of a sun-beam. And at this pace..."

---

① Corona: *n.* 冠壮物, 王冠, 光环

② Zodiacal: *adj.* [天] 黄道带的, 黄道带内的

③ haze: *n.* 薄雾

④ morning star: 晨星

⑤ hummock: *n.* 圆丘, 小丘

⑥ refract: *vt.* 使折射

He peered upwards. "Look! " he said.

"What? " I asked.

"In the sky. Already. On the blackness — a little touch of blue. See! The stars seem larger. And the little ones and all those dim nebulosities<sup>①</sup> we saw in empty space — they are hidden! "

Swiftly, steadily, the day approached us. Gray summit after gray summit was overtaken by the blaze, and turned to a smoking white intensity. At last there was nothing to the west of us but a bank of surging fog, the tumultuous<sup>②</sup> advance and ascent<sup>③</sup> of cloudy haze. The distant cliff had receded<sup>④</sup> farther and farther, had loomed and changed through the whirl, and foundered and vanished at last in its confusion.

Nearer came that steaming advance, nearer and nearer, coming as fast as the shadow of a cloud before the south-west wind. About us rose a thin anticipatory haze.

Cavor gripped my arm. "What? " I said.

"Look! The sunrise! The sun!"

He turned me about and pointed to the brow of the eastward cliff, looming above the haze about us, scarce lighter than the darkness of the sky. But now its line was marked by strange reddish shapes, tongues of vermilion<sup>⑤</sup> flame

---

① *nebulosity* : *n.* 星云状物

② *tumultuous* : *adj.* 喧嚣的

③ *ascent* : *n.* 上升

④ *recede* : *v.* 后退

⑤ *vermilion* : *n.* [亦作 *vermillion*] 朱砂, 朱红色

that writhed and danced. I fancied it must be spirals of vapour that had caught the light and made this crest of fiery tongues against the sky, but indeed it was the solar prominences I saw, a crown of fire about the sun that is forever hidden from earthly eyes by our atmospheric veil.

And then — the sun!

Steadily, inevitably came a brilliant line, came a thin edge of intolerable effulgence<sup>①</sup> that took a circular shape, became a bow, became a blazing sceptre, and hurled a shaft of heat at us as though it was a spear.

It seemed verily<sup>②</sup> to stab my eyes! I cried aloud and turned about blinded, groping for my blanket beneath the bale.

And with that incandescence<sup>③</sup> came a sound, the first sound that had reached us from without since we left the earth, a hissing<sup>④</sup> and rustling, the stormy trailing of the aerial garment of the advancing day. And with the coming of the sound and the light the sphere lurched, and blinded and dazzled we staggered helplessly against each other. It lurched again, and the hissing grew louder. I had shut my eyes perforce<sup>⑤</sup>, I was making clumsy<sup>⑥</sup> efforts to cover my head with my blanket, and this second lurch sent me helplessly off my feet. I fell against the bale, and opening my eyes had a momentary glimpse of the air just outside our glass. It was running — it was boiling — like snow into which a white-hot rod is thrust. What had been solid air had suddenly at the touch of

---

① effulgence : *n.* 光辉, 灿烂

② verily : *adv.* 实在, 真正地

③ incandescence : *n.* 白热, 炽热

④ hissing : *n.* 发嘶嘶声

⑤ perforce : *adv.* 必然地

⑥ clumsy : *adj.* 笨拙的



the sun become a paste, a mud, a slushy liquefaction<sup>①</sup>, that hissed and bubbled into gas.

There came a still more violent whirl of the sphere and we had clutched one another. In another moment we were spun about again. Pound we went and over, and then I was on all fours. The lunar dawn had hold of us. It meant to show us little men what the moon could do with us.

I caught a second glimpse of things without, puffs of vapour, half liquid slush, excavated, sliding, falling, sliding. We dropped into darkness. I went down with Cavor's knees in my chest. Then he seemed to fly away from me, and for a moment I lay with all the breath out of my body staring upward. A toppling crag<sup>②</sup> of the melting stuff had splashed over us, buried us, and now it thinned and boiled off us. I saw the bubbles dancing on the glass above. I heard Cavor exclaiming feebly.

Then some huge landslip<sup>③</sup> in the thawing air had caught us, and spluttering expostulation, we began to roll down a slope, rolling faster and faster, leaping crevasses and rebounding from banks, faster and faster, westward into the white-hot boiling tumult of the lunar day.

Clutching at one another we spun about, pitched this way and that, our bale of packages leaping at us, pounding at us. We collided, we gripped, we were torn asunder — our heads met, and the whole universe burst into fiery darts<sup>④</sup> and stars! On the earth we should have smashed one another a dozen times, but on the moon, luckily for us, our weight was only one-sixth of what it is terrestrially, and we fell very mercifully. I recall a sensation of utter sickness, a

---

① liquefaction : *n.* 液化

② crag : *n.* 峭壁

③ landslip : *n.* [地]山崩, 地滑, 崩塌, 塌方

④ dart : *n.* 飞镖