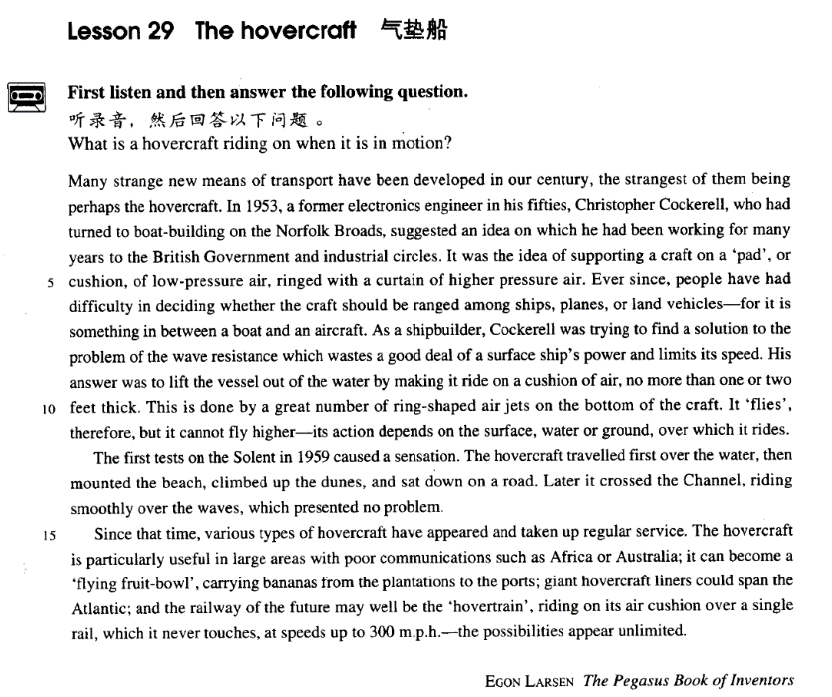
Book



课文

Many strange new means of transport have been developed in our century, the strangest of them being perhaps the hovercraft.

本世纪已研制出许多新奇的交通工具，其中最新奇的要数气垫船了。

In 1953, a former electronics engineer in his fifties, Christopher Cockerell, who had turned to boat-building on the Norfolk Broads, suggested an idea on which he had been working for many years to the British Government and industrial circles.

1953年，有一位50多岁名叫克里斯托弗.科克雷的原电子工程师，改行在诺福克郡的湖泊地区从事造船业，他向英国政府和工业界提出了他研究多年的一项计划。

It was the idea of supporting a craft on a 'pad', or cushion, of low-pressure air, ringed with a curtain of higher pressure air.

他的设想是：用一个低压空气或软垫来支撑船体，软垫周围用高压空气环绕。

Ever since, people have had difficulty in deciding whether the craft should be ranged among ships, planes, or land vehicles -- for it is something in between a boat and an aircraft.

自那以后，人们很难决定是否应该将这种运载工具列为轮船、飞机，或是陆上交通工具，因为它是介于船和飞机之间。

As a shipbuilder, Cockerell was trying to find a solution to the problem of the wave resistance which wastes a good deal of a surface ship's power and limits its speed.

作为一个船舶技师，科克雷尔在寻找解决波浪阻力的方法，因为波浪阻力浪费掉了船在水面行驶的大量动力，从而限制了船的速度。

His answer was to lift the vessel out of the water by making it ride on a cushion of air, no more than one or two feet thick.

他的解决办法是把船体提离水面，让船在一个气垫上行驶，气垫只有一两英尺厚。

This is done by a great number of ring-shaped air jets on the bottom of the craft.

船底装上大量环状喷气嘴以实现这一目的。

It 'flies', therefore, but it cannot fly higher -- its action depends on the surface, water or ground, over which it rides.

这样船就能飞了，但飞不高。它的飞行限决于它所悬浮的水面或地面。

The first tests on the Solent in 1959 caused a sensation.

1959年，在苏伦特海峡进行的首次试航引起了轰动。

The hovercraft travelled first over the water, then mounted the beach, climbed up the dunes, and sat down on a road.

气垫船先是在水面上行驶，后又登上海岸，爬上沙丘，最后停在路上。

Later it crossed the Channel, riding smoothly over the waves, which presented no problem.

后来气垫船跨越英吉利海峡，平衡地在波浪上方行驶，波浪不再产生阻力。

Since that time, various types of hovercraft have appeared and taken up regular service.

从那以后，各种各样的气垫船出现了，并开始了定期航行服务。

The hovercraft is particularly useful in large areas with poor communications such as Africa or Australia; it can become a 'flying fruit-bowl', carrying bananas from the plantations to the ports; giant hovercraft liners could span the Atlantic; and the railway of the future may well be the 'hovertrain', riding on its air cushion over a single rail, which it never touches, at speeds, up to 300 m. p. h. -- the possibilities appear unlimited.

气垫船在非洲、澳大利亚等交通不发达地区特别有用；它能成为“飞行水果盘子”，把香蕉从种植园动到港口；大型的气垫班轮或许能跨越大西洋；未来的火车或许能成为“气垫火车”，靠气垫在单轨上行驶而不接触轨道，时速可达每小时300英里。

词汇讲解

### cushion

* **cushion** ['kʊʃn] n. 软垫，靠垫；垫状物；缓冲

**cushion** n. **含义**1. a cloth bag filled with soft material that you put on a chair or the floor to make it more comfortable 软垫，靠垫

* a velvet **cushion**
* a **cushion** cover

**cushion** n. **含义**2. a layer of sth. between two surfaces that keeps them apart 垫状物

* A hovercraft rides on a **cushion** of air.

**cushion** n. **含义**3. sth. that protects you against sth. unpleasant that might happen 缓冲

* **cushion against …** 对抗…的缓冲
* His savings were a comfortable **cushion against** financial problems.

**cushion** n. **含义**4. the soft rubber edge of the table used for playing billiards or snooker（台球台内侧边缘的）弹性衬里

### sensation

* **sensation** [sen'seɪʃn] n. 轰动；感觉

**sensation** n. **含义**1. state of great surprise, excitement, interest, etc among many people 轰动

* **cause a sensation** 引起轰动
* News of his arrest **caused a sensation**.
* The first tests on the Solent in 1959 **caused a sensation**.

**sensation** n. **含义**2. a feeling that you get from one of your five senses, especially the sense of touch 感觉（尤指触觉）

* One sign of a heart attack is a tingling **sensation** in the left arm.
* This is supposed to induce pleasurable **sensations** in the elephant, and its effects are reinforced by the use of endearing epithets.

**【同根词】**

**sensational** adj. 轰动性的

* a **sensational** discovery
* The affair was the most **sensational** political sex scandal of the century.

**【词根】**

“**sens** / **sent**” = **to feel**

**sensation** n. 感觉；轰动；感动

**sensational** adj. 轰动的；耸人听闻的；非常好的；使人感动的

**sense** n. 感觉，知觉；意义

**sensitive** adj. 敏感的

**sensual** adj. 肉体上的；性感的

**sentiment** n. 情绪，感情

**sentimentality** n. 多愁善感

**assent** v. & n. 同意，赞成

**consent** v. & n. 同意，赞成

**consensus** n. 共识

**dissent** n. 异议，反对；v. 持异议，不同意

**resent**  v. 怨恨，憎恨

**resentment** n. 怨恨，憎恨

**presentiment** n. 预感，凶兆

### plantation

* **plantation** [plɑ:n'teɪʃn] n. 种植园，农场

**plantation** n. **英文解释：**a large area of land in a hot country, where crops such as tea, cotton, and sugar are grown（尤指热带国家的）种植园，农场

* a banana **plantation**
* **plantation** workers / owners

**【词根】**

“**plant**” = **to plant**（种植）；**plant**（植物）

**plantation** n. 种植园，农场

**plant** n. 植物；工厂；设备；v. 种植；栽赃

**implant**  v. 灌输（思想）；在身体某部位植入

**implantation** n. （思想）的灌输；（医）植入

**plantlet** “**let**” = **small** n. 小植物，植物幼苗

**transplant** “**trans**” = **across** v. & n. 移植（植物） ；移植（器官）

**transplantable** adj.（植物或器官）可移植的

课文讲解

# （第一段）

# Many strange new means of transport have been developed in our century, the strangest of them being perhaps the hovercraft.

**语法分析：**

Many strange new means of transport have been developed in our century, the strangest of them being perhaps the hovercraft（独立主格）.

知识点（1）Lesson03-03

**语法：形容词的顺序 大小 形状 年龄 新旧 颜色 国际 材料 用途 + 中心名词**

* **举例**：一张新的很沉的黑色的中国式的圆形的大木餐桌
* a heavy big round new black Chinese wooden dining table
* For most of them, 50 pence is a small price to pay for a **nice** **big** bar of chocolate.
* One of Mary's prize possessions was a **little** **white** lamb which her husband had given her.
* The towers are built on **immense** **underwater** platforms made of steel and concrete.
* The towers are built on **immense** **ferro-concrete** platforms which are sunk beneath the water.

知识点（2）Lesson03-03

**语法注意：名词前有量词，形容词放在量词；形容词一般修饰量词而不修饰中心名词**

* a nice ***cup***of tea 一杯好茶
* a beautiful ***stretch***of field 一片美丽的田野
* a stagnant ***pool***of water 一潭死水
* great ***lengths***of drill pipe
* strange new ***means***of transport
* For most of them, 50 pence is a small price to pay for a nice big ***bar***of chocolate.
* Our next obstacle was a shallow ***pool*** of water about half a mile across.

知识点（3）**【词汇】**

**transport** n. [U] (US **transportation**) 交通，交通工具

* A lot of people object to mobile phones, especially when they are used in public places like restaurants or on public **transport**.
* Food, clothing, shelter, and **transportation** are daily necessities.

知识点（4）**【词汇】**

**develop** v. **英文解释：**to design or make a new idea, product, system etc. over a period of time 研制，设计，开发

* Scientists are **developing** new drugs to treat arthritis.
* He claims that several countries have **developed** nuclear weapons secretly.

知识点（5）**【复习】 独立主格**

* The village seemed deserted, the only sign of life *being* an ugly-looking black goat on a short length of rope tied to a tree in a field nearby.

知识点（6）【课文仿写】

* **造句**：苹果公司 (Apple Inc.) 研制出了很多有趣的新产品，其中最成功的可能就是iPhone 了。
* Many interesting new products have been developed by Apple Inc., the most successful of them being perhaps the ‘iPhone’.

# In 1953, a former electronics engineer in his fifties, Christopher Cockerell, who had turned to boat-building on the Norfolk Broads, suggested an idea on which he had been working for many years to the British Government and industrial circles.

**语法分析：**

In 1953（时间状语）, a former electronics engineer in his fifties, Christopher Cockerell（同位语）, who had turned to boat-building on the Norfolk Broads（who...定语从句）, **suggested** an idea on which he had been working for many years（on which...定语从句） **to** the British Government and industrial circles.

知识点（1）**【词汇】**

**electronics** n. **含义**1. [U] the scientific study of electric current and the technology that uses it 电子学

* a degree in **electronics**
* the electronics industry an **electronics** engineer

**electronics** n. **含义**2. [pl.] electronic equipment 电子设备

* Weather can interfere with a car's **electronics**.

知识点（2）

表达“**年龄**”：

**in his fifties** 五十岁左右

in his **early** fifties 五十一二岁

in his **mid**-fifties 五十五岁左右

in his **late** fifties 五十八九岁

知识点（3）

**turn to sth. 英文解释：** to devote or apply oneself to something, as to a field of study致力于……

* Unsuccessful in mathematics, the student **turned to** biology.

知识点（4）课文地点介绍

**Norfolk** n.诺福克郡 a county in eastern England, consisting mainly of rather flat farmland and some lakes called the Norfolk Broads (诺福克郡的布罗兹湖区), where many people spend holidays sailing in small boats or barges.

知识点（5）**【词汇】**

**industrial** adj.工业的；产业的

**【辨析】**

**industrious** adj.勤奋的；勤劳的；忙碌的

知识点（6）**【词汇】**

**circle** n. **英文解释：**a group of people who know each other and meet regularly, or who have similar interests or jobs（有共同兴趣、职业等的人形成的） 圈子，阶层，界

# It was the idea of supporting a craft on a 'pad', or cushion, of low-pressure air, ringed with a curtain of higher pressure air.

**语法分析：**

It was the idea **of** supporting a craft on a 'pad', or cushion（插入语）, of low-pressure air（介词of引出同位语）, ringed with a curtain of higher pressure air（非谓语动词做后置定语,修饰low-pressure air）.

知识点（1）**【词汇】**

**craft** n. **含义**1. [pl. craft] a boat or ship 船舶

* We passed several other **craft** on the river.

**craft** n. **含义**2. [pl. craft] an aircraft or spacecraft 航天器，宇宙飞船

* The astronauts piloted their **craft** down to the lunar surface.

知识点（2）**【词汇】**

**pad** n. **英文解释：**a thick flat object made of cloth or rubber, used to protect or clean sth., or to make sth. more comfortable 垫

**pad of …** …的垫子

* Press on the wound with a large **pad of** cotton wool.

知识点（3）**【词汇】**

**ring** v. **英文解释：**to surround sth. 包围，环绕

* Armed police **ringed** the hijacked plane.

**be ringed with sth.** 被… 的包围

* Her eyes **were ringed with** black lashes.

知识点（4）**【词汇】**

**curtain** n. **英文解释：**a thing that covers, hides or protects sth. 掩蔽物，覆盖物，防护物

**curtain of …** … 的帘状物

* **a curtain of** fog / smoke
* They could see nothing through the **curtain of** rain.

# Ever since, people have had difficulty in deciding whether the craft should be ranged among ships, planes, or land vehicles -- for it is something in between a boat and an aircraft.

**语法分析：**

Ever since（时间状语）, people have had difficulty in deciding whether the craft should be ranged among ships, planes, or and vehicles（宾语从句）―*for it is something in between a boat and an aircraft**（for... 原因状语从句）*.

知识点（1）Lesson03-02、Lesson03-29

**ever since** adv. & prep. & conj. continually since that time 从那以后，一直……(用完成时）

* The big clock which used to strike the hours day and night was damaged many years ago and **has been** silent **ever since**(adv.）.
* There are countless people who, **ever since**(prep.） their early years,**have learned** to associate.
* Assuming that his family had been killed during an air-raid, Hans settled down in a Village fifty miles away where he **had remained** **ever since**(adv.）.
* It'**s been** the same way **ever since**(conj.） we were kids.
* He **has been** depressed **ever since**(conj.） he got divorced.

知识点（2）Lesson03-43

**have difficulty (in) doing sth.**   做某事很困难

= **have trouble (in) doing sth.**

= **have a hard time doing sth.**

* She**had a hard time writing** the dear John letter（绝交信）.
* We **had** no **difficulty (in)** *finding* the house.
* I **had** some **trouble (in)** *reading* his letter. His handwriting is very bad.

**have a good time doing sth.**做某事开心、轻松

知识点（3）**【词汇】**

**range** v. (fml.) **英文解释：**to assign to a category, classify 归类，分类

知识点（4）

**in between** adv. & prep.

= **between**

* I lost my keys somewhere **in between** the car and the house.
* One town ends where the next begins and there's a road that runs **in between**.

# As a shipbuilder, Cockerell was trying to find a solution to the problem of the wave resistance which wastes a good deal of a surface ship's power and limits its speed.

**语法分析：**

As a shipbuilder, Cockerell was trying to find a solution to the problem of the wave resistance which wastes a good deal of a surface ship's power and limits its speed（which...定语从句）（to ... 后置定语,修饰solution）.

# His answer was to lift the vessel out of the water by making it ride on a cushion of air, no more than one or two feet thick.

**语法分析：**

His answer was *to lift the vessel out of the water by making it ride on a cushion of air（方式状语）, no more than one or two feet thick（后置定语）*. （to … 不定式做表语）

知识点（1）Lesson04-13、Lesson04-29 **形容数量多少**

**【Part1】**

**语法：no more than …** 只有、仅仅，只不过……

**语法：not more than …** 最多……，不超过……

* **No more than** 20 people are present.
* We were standing **no more than** 10 meters away from the scene of the crime and we didn't realize it.
* His answer was to lift the vessel out of the water by making it ride on a cushion of air, **no more than** one or two feet thick.
* When one seriously studies the social orders that have had the opportunity to develop autonomously, the figure becomes **no more than** an exact and matter-of-fact observation.
* **Not more than 2**0 people are present.
* She is **not more than** thirty.

**【Part2】**

**语法：no less than+数词+计量名词(时间；距离；金额)** （强调数量特别大）“足足有……；有……之多”

**语法：not less than+数词+计量名词(时间；距离；金额)** “至少有……；不少于……”

* He won **no less than** $1,000,000 in the lottery.
* He won **not less than** $1,000,000 in the lottery.

**语法：no fewer than+ 数词 + 普通名词**“足足有……；有……之多”

**语法：not fewer than+数词+普通名词** “至少有……；不少于……”

* **No fewer than** a thousand people came.
* **Not fewer than** a thousand people came.

**注意**：当代英语：**less than**渐渐取代**fewer than**

**【Part3】**

**语法：less than+数词+计量名词(时间；距离；金额)** 还不到…

* **less than** 20 minutes / a foot / 2 miles / 10 dollars
* The holes are only borings, **less than** a foot in diameter.

**语法：fewer than+数词+普通名词**

* There are **fewer than** 20 applications.
* The whole of Switzerland has **fewer than** six million inhabitants.

**【Part4】**Lesson03-36、Lesson04-21

**nothing but …** 只，只有

* He had **nothing but** a cup of tea this morning．
* William S. hart was, perhaps, the greatest of all Western stars, for unlike Gary Cooper and John Wayne he appeared in **nothing but** Westerns.
* I have heard of writers who read **nothing but** their own books; …

**【Part5】【扩展】**

**nothing more than**（贬义）只不过是

* He dismissed Bryan as **nothing more than** an amateur.

# This is done by a great number of ring-shaped air jets on the bottom of the craft.

知识点（1）Lesson03-18 **复合形容词**

**shaped** adj. used with many nouns to make adjectives describing the shape of something形状的；[suffix] 和其他词放在一起构成复合形容词

* **Oddly shaped** forms that are suspended from the ceiling and move in response to a gust of wind are quite familiar to everybody.
* I was not surprised to find that the machine still refused to work after I had reassembled it, for the simple reason that I was left with several **curiously shaped** bits of metal which did not seem to fit anywhere.
* My cousin, Harry, keeps a large **curiously-shaped** bottle on permanent display in his study.
* She has a **perfectly shaped** figure.
* **heart-shaped**       心形的
* **pear-shaped** 梨形的
* **V-shaped**                V形的

知识点（2）**【词汇】**

**jet** n. **英文解释：**a narrow stream of liquid or gas that comes quickly out of a small hole, or the hole itself 喷射；喷嘴

* to clean the gas **jets** on the cooker
* She soaped herself beneath the refreshing **jets** of water.

# It 'flies', therefore, but it cannot fly higher -- its action depends on the surface, water or ground, over which it rides.

**语法分析：**

It 'flies', therefore（插入语）, but it cannot fly higher―its action depends on the surface, *water or ground（插入语）*, over which it rides（定语从句）.

# （第二段）

# The first tests on the Solent in 1959 caused a sensation.

知识点（1）课文地点介绍

**Solent**: A narrow channel between the Isle of Wight and the southern mainland of England. The Solent provides access to the port of Southampton. 苏伦特海峡

# The hovercraft travelled first over the water, then mounted the beach, climbed up the dunes, and sat down on a road.

知识点（1）**【词汇】**

**mount** v. **含义**1. go up, ascend 登上

* He **mounted** the platform and addressed the crowd.
* A car suddenly **mounted** the pavement to avoid a vehicle coming in the opposite direction.

**mount** v. **含义**2. to fix sth. into position on sth., so that you can use it, look at it or study it 将某物固定住（以备使用、展示或研究）

* Triple gun-decks **mounted** sixty-four bronze cannon.

**mount** v. **含义**3. to increase gradually 逐渐增加

* The death toll continues to **mount**.
* This modern faith in medicines is proved by the fact that the annual drug bill of the Health Services is **mounting to** astronomical figures and shows no signs at present of ceasing to rise.

**mount** v. **含义**4. get onto or put sb. onto a horse, etc. for riding（使）骑上马等

* He quickly **mounted** his horse and rode away.
* He **mounted** the boy on the horse.
* The policemen were **mounted** on black horses.
* Two assistants, **mounted** on tame elephants, control the captive from either side, …

# Later it crossed the Channel, riding smoothly over the waves, which presented no problem.

**语法分析：**

Later it crossed the Channel, *riding smoothly over the waves（方式状语）, which presented no problem（which... 非限定性定语从句）*.

知识点（1）

**be / pose / present a problem for …** 为…构成威胁

* Racial tensions in the south of the city **pose a** real **problem for** the police.
* The high rate of inflation **presents a** serious **problem for** the government.

**【扩展】【形近词组】**

**be / pose / present / constitute a hazard to …** 构成隐患

**be / pose / present / constitute a threat / menace to …** 构成威胁

# （第三段）

# Since that time, various types of hovercraft have appeared and taken up regular service.

**语法分析：**

*Since that time（时间状语）*, various types of hovercraft have appeared and taken up regular service.

知识点（1）

**take up** v. **英文解释：**start or begin sth, esp. a job 开始（某种工作等）

* She has **taken up** a job as a teacher.

知识点（2）**【词汇】**

**service** n. [U] **英文解释：**used to talk about whether a piece of equipment, a vehicle etc. is available to be used, or how long it can be used （设备，交通工具等）被使用，得到使用

* These trains have been **in service** for many years.
* The escalator is still **out of service**.
* Steel tools can give good **service** for years.

# The hovercraft is particularly useful in large areas with poor communications such as Africa or Australia; it can become a 'flying fruit-bowl', carrying bananas from the plantations to the ports; giant hovercraft liners could span the Atlantic; and the railway of the future may well be the 'hovertrain', riding on its air cushion over a single rail, which it never touches, at speeds, up to 300 m. p. h. -- the possibilities appear unlimited.

**语法分析：**

（并列1）The hovercraft is particularly useful in large areas with poor communications（后置定语，修饰large areas） such as Africa or Australia（such as… 后置定语，修饰**large areas with…**）; （并列2）it can become a 'flying fruit-bowl', carrying bananas from the plantations to the ports（后置定语）; （并列3）giant hovercraft liners could span the Atlantic; （并列4）and the railway of the future may well be the 'hovertrain', riding on its air cushion over a single rail（后置定语）, which it never touches（which...定语从句）, at speeds up to 300 m.p.h. （方式状语） ― the possibilities appear unlimited.

知识点（1）**【词汇】**

**communications** n. [pl.] **英文解释：**roads, railways etc that are used for travelling and sending goods 交通

* Paris has good **communications** with many European cities.
* Its commercial success as a city is partly due to its excellent rail and road **communications**.

知识点（2）**【词汇】**

**fruit bowl** n. **英文解释：**A fruit bowl is a large bowl in which fruit is kept and displayed. 果盘

知识点（3）**【词汇】**

**liner** n. **英文解释：**a large ship for passengers 客轮，班轮

* The tragic sinking of this great **liner** will always be remembered, for she went down on her first voyage with heavy loss of life.

知识点（4）**【词汇】**

**span** v. **英文解释：**to stretch right across sth, from one side to the other 跨越，贯穿

* a series of bridges **spanning** the river

知识点（5）

**may / might / could well … 英文解释：**used to say that sth. is like to happen or is likely to be true （某事）可能（发生或是真的）

* Another patient **might** equally **well** complain that her neighbours were combining to slander her and persecute her, and yet one might be cautious about believing this statement.
* Over the years one **may well** become an authority on one's hobby and will very probably be asked to give informal talks to little gatherings and then, if successful, to larger audiences.
* Apart from moral considerations this is a stupid method of training, for it produces a resentful animal who at a later stage **may well** turn man-killer.

知识点（6）**【词汇】**

**possibilities** n. [pl.] **英文解释：**capability of being used or improved, potential 潜在价值，潜力

* The house is very dilapidated but it has **possibilities**.
* He was the first to see the **possibilities** of the plan.

知识点（7）**【词汇】**

**unlimited** adj. **英文解释：**as much or as many as is possible, not limited in any 无限的，无穷的

* Demand for health care appears virtually unlimited.
* This new technology opens up almost unlimited possibilities.