# Powering the Industrial Revolution

## 长难句

The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half.

Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets.

## 单词

Harness：v. 治理，利用

Embody vt. 体现，使具体化；具体表达

Charcoal 木炭

Isles 群岛

Monopoly 垄断

Virtual 虚拟的；实质上的

Pump n. 泵；泵送

Piston 活塞

Eliminate 排出，解决

in a millennium and a half. 在1500年来

flanged wheels 带凸缘的轮子，法兰

# Agriculture, Iron, and the Bantu Peoples

These peoples settled at first in scattered hunting-and-gathering bands, although in some places near lakes and rivers, people who fished, with a more secure food supply, lived in larger population concentrations.

这些部落起初分散地定居，并仍靠打猎和采集维生，尽管是在靠近湖泊和河流的地区人们以捕鱼为业，有较稳定的食物供给，聚集了较多的人口。

Band 带 环 形容人群聚集区域的

Varieties 多样性的 小麦的多样性 wheat

carve out large empires

Most of Africa presents a curious case in which societies moved directly from a technology of stone to iron without passing through the intermediate stage of copper or bronze metallurgy, although some early copper-working sites have been found in West Africa.

大部分非洲表现出一种奇怪的现象，那就是他们社会直接从石器时代进步到铁器时代，而没有经过中间过渡的铜器或青铜器冶金术，尽管在西亚发现了一些早期使用铜器的地区。

Case现象

Metallurgy 冶金术

Africans had iron from a relatively early date, developing ingenious furnaces to produce the high heat needed for production and to control the amount of air that reached the carbon and iron ore necessary for making iron.

他们制造了精巧的高炉以产生冶铁所需要的高温，并能控制与碳和铁矿石接触的空气用量以满足冶铁的需要。

Ingenious 有独创性的；机灵的，精制的；心灵手巧的

accompanied v. 陪伴，伴随；伴奏（accompany的过去分词）

adj. 伴随的；相伴的

They spoke a language, proto-Bantu (“Bantu” means “the people”), which is the parent tongue of a language of a large number of Bantu languages still spoken throughout sub-Sahara Africa.

harshness

n. 严肃；刺耳；粗糙的事物

# Ancient Rome and Greece

Disdain n. 蔑视——caliber n. 才干，能力，智力——Epistle 书信

“Had the Greeks held novelty in such disdain as we,” asked Horace in his epistle, “what work of ancient date would now exist?”

Roman civilization 罗马文化 Roman intellectuals 罗马知识分子

Regularity n. 规律性 foster: 培养，促进。

obsession with: 着迷于……，所以 fixation on 着迷于……

speculative philosophy 推理哲学

# The Geologic History of the Mediterranean

pebble 美[ˈpɛbəl] n. 卵石 domes 家+/ 圆屋顶 美[dom] n. 圆屋顶 海盐堆

scores of: 指的是大量（固定词组），跟 score 的原意无关

recover 采集 collect的含义Samples recovered from the expedition

Another task for the Glomar Challenger’s scientists was to try to determine the origin of the domelike masses buried deep beneath the Mediterranean seafloor.

Were they salt domes such as are common along the United States Gulf Coast, and if so, why should there have been so much solid crystalline salt beneath the floor of the Mediterranean?

The sample consisted of pebbles of hardened sediment that had once been soft, deep-sea mud, as well as granules of gypsum and fragments of volcanic rock. 样本包括曾经柔软的深海淤泥的卵石，以及石膏颗粒和火山岩碎片。

# Running Water on Mars

Two types of flow features are seen: runoff channels and outflow channels. 两种流动形式已经被发现：径流通道和外流通道。

They bear a strong resemblance to river systems on Earth 它们和地球上的河流系统非常相似

Martian highlands 火星高地 equatorial adj. 赤道的

The onrushing water arising from these flash floods likely also formed the odd teardrop-shaped “islands” 由这些骤发洪水产生的急流很可能也形成了奇怪的水滴形“岛屿”。

resembling the miniature versions seen in the wet sand of our beaches at low tide (类似于退潮时在海滩湿沙上看到的微型版本)

A 2003 Mars Global Surveyor image shows what mission specialists think may be a delta—a fan-shaped network of channels and sediments where a river once flowed into a larger body of water, in this case a lake filling a crater in the southern highlands.火星全球勘测者2003年的一张图片显示了一个被专家们认为可能是三角洲的东西——一个扇形的河道和沉积物网络，一条河流曾经流入了一个更大的水体，在这个例子中是一个填满了南部高地火山口的湖泊——in this case something.

Conceivably 令人信服地 detractor 反对者

Yet even setting aside the unproven hints of ancient oceans, the extent of the outflow channels suggests that a huge total volume of water existed on Mars in the past. 然而就算不考虑尚未证明的古代海洋存在的观点，出流通道的广泛存在就足以证明在火星上曾有大量的水体。

# The extinction of dinosaurs

Many plants and animals disappear abruptly from the fossil record as one moves from layers of rock documenting the end of the Cretaceous up into rocks representing the beginning of the Cenozoic the era after the Mesozoic.

当人们对比白垩纪后期的岩层资料和新生代（中生代后面的一个时期）早期的资料时发现很多植物和动物都突然地消失了。

# The Rise of Teotihuacán

regular grid pattern of streets and buildings 规则的街道建筑网络。

religious significance as a shrine 宗教意义上的圣地 n. 意义；重要性；意思

obsidian 黑曜石

a people who flourished between 1200 and 400 B.C. 民族-繁荣

consciously attempted to attract new inhabitants.

positive feedback

# Colonizing the Americas via the Northwest Coast

Corridor 走廊 two massive ice sheets 两个巨大的冰原

Paleoecologist 古生态学家

It had been assumed that the ice extended westward from the Alaskan/Canadian mountains to the very edge of the continental shelf, the flat, submerged part of the continent that extends into the ocean. 人们猜测冰从阿拉斯加、加拿大山脉向西延伸到大陆架的边界，也就是大陆延伸到海洋中而被淹没的部分。

This would have created a barrier of ice extending from the Alaska Peninsula, through the Gulf of Alaska and southward along the Northwest Coast of north America to what is today the state of Washington. 这样就形成了一个由冰构成的，从阿拉斯加半岛，经过阿拉斯加海湾，向南沿着北美洲西北海岸延伸至今天的华盛顿州的冰层障碍。

More recent geologic studies documented deglaciation and the existence of ice-free areas throughout major coastal areas of British Columbia, Canada, by 13,000 years ago. 更多最近的地质研究证明了13 000年前在加拿大的不列颠可伦比亚省主要海岸地区无冰区域的存在和结冰。

# Thales And The Milesians

1. elaborated upon 进一步发展
2. conjecture n. 推测；猜想;vi. 推测；揣摩;vt. 推测
3. Anaximander's pupil XX的徒弟
4. Rarefied air 稀薄的空气.
5. purely creative 完全创新性的
6. in today's sense 在今天看来

His two best-known followers, though there were undoubtedly others who attained less renown, were Anaximander and Anaximenes他最著名的两个徒弟是Anaximander和Anaximenes，当然他还有很多不那么出名的徒弟。

Anaximander, observing the motions of the heavens around the polestar, was probably the first of the Greek philosophers to picture the sky as sphere completely surrounding Earth-an idea that, elaborated upon later, would prevail until the advent of the Scientific Revolution in the seventeenth century. Anaximander发现了天空围绕北极星转动，他可能是第一位把天空描绘成完全包裹住地球的球形的希腊哲学家，这个观点后来被精细化了，直到十七世纪的科学革命到来之前一直都是流行的观点。

Compressed, it became water and earth, and when rarefied or thinned out, it heated up to become fire. 空气被压缩变成水和土地，空气被稀薄化，加热变成火焰

It is possible for anyone to create "ideas" about the nature and structure of the universe, for instance, and many times these ideas can be so consistent and elaborately structured, or just so apparently obvious, that they can be persuasive to many people. 任何一个人都可以对自然或者宇宙组成的本源提出自己的想法，很多时候这些想法是一致的且精心架构的，或者只是太明显以至于对于很多人都有说服力。

A scientific theory about the universe, however, demands much more than the various observations and analogies that were woven together to form systems of reasoning, carefully constructed as they were, that would eventually culminate in Aristotle's model of the world and the universe. 一个精心构建的关于宇宙的科学理论，需要多于各种各样观察和类比来形成推理的系统，最终会在亚里士多德的世界宇宙模型里达到成熟。

# Direct Species Translocation

1. conspecifics n. 同种个体（conspecific的复数）
2. substantially adv. 实质上；大体上；充分地 ——文中为大量的之意
3. reintroduction n. 再介绍；再引入
4. under the banner of 打着XX旗号的
5. demographic adj. 人口结构的；人口统计的
6. sedentary species 定居动物

Unfortunately, the success stories are at least matched by accounts of failure.不幸的是，这些成功的案例背后，有同样数量巨大的失败案例。

Reviewing translocation of amphibians and reptiles, researchers C.Kenneth Dodd and Richard A. Siegel concluded that （most projects have not demonstrated success as conservation techniques ）and （should not be advocated ）as though they were acceptable management and mitigation practices.

研究者C. Kenneth Dodd和Richard A. Siegel在回顾了两栖动物和爬虫的迁移案例后，得出结论，大多数迁移项目并没有把成功阐释为保护措施的成功，尽管它们是可以接受的管理和减轻问题的实践，它们也不应该被提倡。

# Modern Architecture In The United States

1. Eliminate vt. 消除；根除；清除；销毁
2. Civic adj. 市政的;城镇当局的
3. Grain 谷物
4. in an undisguised and unadorned manner 以一种不加掩饰和修饰的方式
5. architects 建筑师
6. masonry n. 砖石结构；砖石建筑

# 错误原因积累

1. 单词不认识，没看懂。Ep.virtual monopoly 是实质性霸权的意思，没看懂，就不好推断
2. 面对很多信息的时候，因为全文没看太明白，对于结构的建模不精准，所以选择了细节选项，而不是结构性的中心句。看完一段之后，因为没看懂，所以不知道是什么结构，没有理解。其实结构应该是明确的，从翻译上来看。
3. 因为单词的“多义性”，没有把握好，所以错误的理解了句子含义。如harness，就记得是马具，所以看不懂。
4. 因为distain没看懂，所以把一句话的含义看反了——“Had the Greeks held novelty in such disdain as we,” asked Horace in his epistle, “what work of ancient date would now exist?”
5. 面对推理题的时候，仍然按照“坚持原文”的观点，然后错了。——Paragraph 3 suggests which of the following about the people of Latium? 根据大陆民族的特点推理农业重要性——要跟“其他三项都没说”对应的坚持原文区分开来。难点在于原文中提到了的可能是错误选项（意思是反的），而另一个推理的才是正确合理的。
6. 如果不读懂选项的含义就会错。如“A. comparing the opinions of Roman intellectuals to Greek intellectuals”—“ D. contrasting characteristics of Roman civilization with characteristics of Greek civilization”—没有区分文明和知识分子的话就会出错。核心还是在词汇量理解的。
7. “对应原文含义”题，如果原文中不存在“让步关系”，那么选项中也不应该有。
8. 推断题错误，如果确实存在无法推理得出的信息，那么判断为错；尽管它叙述的内容可能更切合这一主语。.Which of the following can be inferred from paragraph 3 about the solid gypsum layer?
9. southern 和 northern 偷换原文概念，内容乱拼
10. Various 选项 MS 对应第一段第一句，但原文没说相片有 various type，不选
11. 有一些不熟悉的词汇，词组用法，比如matching sth is sth等
12. 有时候sb do sth and sth ，当其中的前一个sth太长的时候，就会把and后面的句子和sb的联系模糊掉，但实际上，这个主语是公用的，而谓语动词是属于主语的。
13. Why does the author mention that Le Corbusier included "photographs of American factories and grain storage silos, as well as ships, airplanes, and other industrial objects" in Toward a New Architecture? 没有看到后面就对architect的美学思想进行了赞美，所以不是C

# 经验总结

1. 对于长难句要学会跳读，先抓住主谓宾的核心结构，再去扫一眼关于介词短语的定补充内容.
2. 可以根据domes的复数形式以及句子成分，明确它的词性，知道他是名词，指代的是一个东西，具体什么东西可以后面猜，或者“最好不要猜，保持它表面的形式即可”
3. 考场没有时间记笔记，尽快速度，并且在一定时间内给出答案，选择置信度最高的答案/仅对有问题价值的答案进行再评价
4. 有的名词不用有中文翻译名称，有定义，然后就那么叫就行了，这也是语言的本质。主要还是没看懂。想通过中文猜，又无法翻译。
5. 对于长难句的理解，考虑用sth替代不懂的词语，先把握句子的大意
6. 托福考试重视细节题目，对于一些介词短语的理解和短时记忆比较重要
7. 看句子的时候切忌想当然的，把Greece看成想成Germany等等
8. 对于插入句子的题目，尤其要注意其中的it等代词，以及一些逻辑词汇，如果该位置能够与上下文相衔接的话，比自己产生的逻辑（尽管可能更加合理），要更早被选择。