

TPO 40 – 1 Ancient Athens XXX

One of the most important changes ~~in Greece~~ during the period from 800 B.C. to 500 B.C. was the rise of the polis, or city-state, and each polis developed a system of government that was appropriate to its circumstances. The problems that were faced and solved in Athens were the sharing of political power between the established aristocracy and the emerging other classes, and the adjustment of aristocratic ways of life to the ways of life of the new polis. It was the harmonious blending of all of these elements that was to produce the classical culture of Athens. ★

从公元前 800 年到公元前 500 年，希腊最重要的变化之一，就是城邦的兴起，并且每个城邦发展了适合自己情况的政府制度。雅典面对和解决的问题是：现存的贵族和新兴的其他阶层之间的政治权力的分享，以及贵族们针对新城邦的生活方式的调整。正是所有这些元素和谐的融合创造了雅典的古典文化。

感受：刚做这段的时候，费劲了半天也没看明白问题，主要原因不是问题复杂，而是刚接触到题目，有点慌张，所以第一段没看明白，尤其是长难句，这种能力——应激能力，需要平时不断训练。

Entering the polis age, Athens had the traditional institutions of other Greek protodemocratic states: an assembly of adult males, an aristocratic council, and annually elected officials. Within this traditional framework the Athenians, between 600 B.C. and 450 B.C., evolved what Greeks regarded as a fully-fledged democratic constitution, though the right to vote was given to fewer groups of people than is seen in modern times. ★

进入城邦时代，雅典有着其他希腊典型民主政府的传统机构：一个由成年男性组成的议会，一个贵族委员会，每年选出的官员。在这个传统的框架里面，在公元前 600 年到 450 年之间，雅典人发展出了希腊人所认为的一个完全成熟的民主制度，尽管相比于现代，投票权赋予了更少的人群。

The first steps toward change were taken by Solon in 594 B.C., when he broke the aristocracy's stranglehold on elected offices by establishing wealth rather than birth as the basis of office holding, abolishing the economic obligations of ordinary Athenians to the aristocracy, and allowing the assembly (of which all citizens were equal members) to overrule the decisions of local courts in certain cases. The strength of the Athenian aristocracy was further weakened during the rest of the century by the rise of a type of government known as a tyranny, which is a form of interim rule by a popular strongman (not rule by a ruthless dictator as the modern use of the term suggests to us). The Peisistratids, as the succession of tyrants were called (after the founder of the dynasty, Peisistratos), strengthened Athenian central administration at the expense of the aristocracy by appointing judges throughout the region, producing Athens' first national coinage, and adding and embellishing festivals that tended to focus attention on Athens rather than on local villages of the surrounding region. By the end of the century, the time was ripe for more change: the tyrants were driven out, and in 508 B.C. a new reformer, Cleisthenes, gave final form to the developments reducing aristocratic control already under way. ★

批注 | 1]: polis

英 ['pɒlɪs] 美 ['pɒlɪs]

•n. (古希腊)城邦; 警察(同 police)

批注 | 2]: ★这段在说什么?

首句说明一个现象，并且进一步陈述了这个现象的特点【出了道题】:

然后描述了相关问题;

最后引出了 Athens culture.

批注 | 3]: institution

英 [ɪnˈstɪːtʃuːʃn] 美 [ɪnˈstɪːtʃuːʃn]

•n. 制度; 建立; (社会或宗教等)公共机构; 习俗

批注 | 4]: fully-fledged

[ˈfʊli ˈfledʒd]

•adj. 成熟的; 羽毛丰满的; 发育全的

批注 | 5]: ★这段在说什么?

段落较短，主要说一个框架;

首先说了框架的组成部分

【题】:

然后提了框架的演变，并说明了一个貌似无关的问题。

批注 | 6]: 阅读考点单词

批注 | 7]: 已经在实施的! 已经在进行的!

批注 | 8]: ★这段在说什么?

主要说演变的过程;

首先说了 solon 干了几件事;

【题】

然后提出 tyranny 的概念和例子; 【2题】

最后说到 ripe for more change.

stranglehold 英 ['stræŋgəlhoʊld] 美 ['stræŋgəlhoʊld] n. 束缚; 勒颈	overrule 英 [ˌəʊvəˈru:l] 美 [ˌoʊvərˈru:l] vt. 否决; 统治; 对...施加影响
interim 英 ['ɪntərɪm] 美 ['ɪntərɪm] adj. 临时的, 暂时的; 中间的; 间歇的 n. 过渡时期, 中间时期; 暂定	embellish 英 [ɪmˈbelɪʃ] 美 [ɪmˈbelɪʃ] vt. 修饰; 装饰; 润色 vi. 装饰起来; 加以润色

改变的第一步是由梭伦在公元前 594 年实现的, 他打破了贵族对选举职位的束缚: 他建立财富作为任职的基础条件, 而不是出身; 废除普通雅典人对于贵族的经济义务; 在某些情况下, 允许议会(其中所有的公民都是平等的成员) 驳回地方法院的决定。雅典贵族的权利在这个世纪余下的时间中进一步削弱了, 这是由于一种被称为专制政府的兴起, 这是由一个由受欢迎的强人临时统治的一种形式(这个术语和现代我们所知道的意思不同, 并不是指由一个残酷的独裁者来统治)。Peisistratids, 统治者继承人的统一称呼(王朝的创始人庇西特拉图之后), 通过牺牲贵族利益加强中央政府, 任命各个地区的法官, 制定国家第一个货币制度, 加入并强化节日, 这些节日往往聚焦于雅典, 而不是周边地区的本地村庄。到本世纪末, 进行更多变化的时间成熟了: 专制统治者被驱逐, 而在公元前 508 年, 一个新的改革者, 克利斯提尼, 对已经衰弱的贵族统治给予最后一击。

Cleisthenes' principal contribution to the creation of democracy at Athens was to complete the long process of weakening **family and clan structures**, especially among the aristocrats, and to **set**¹ in their place³ **locality-based corporations**² called **demes**, which became the **point of entry** for all civic and most religious life in Athens. **Out of the demes** were created 10 artificial tribes of **roughly** equal population. **From the demes**, by either election or selection, came 500 members of a new council, 6,000 jurors for the courts, 10 generals, and hundreds of commissioners. **The** assembly was **sovereign** in all matters but in practice **delegated** its power to **subordinate** bodies such as **the council, which prepared the agenda for the meetings of the assembly**, and **the courts, which** took care of **most judicial matters**. **Various committees** acted as an executive branch, implementing policies of the assembly and supervising, for instance, the food and water supplies and public buildings. This wide-scale participation by the **citizenry** in the government **distinguished** the democratic form of the Athenian polis **from** other, less liberal forms. ★

roughly 英 ['rʌfli] 美 ['rʌfli] adv. 粗糙地; 概略地	sovereign 英 ['sɒvrɪn] 美 ['sɑ:vrɪn] n. 君主; 独立国; 金磅 adj. 至高无上的; 有主权的; 拥有最高统治权的; 不折不扣的; 有效的
delegate 英 ['delɪɡət, 'delɪɡert] 美 ['delɪɡət, 'delɪɡert] n. 代表, 会议代表; 委员会成员 v. 授(权), 把...委托给他人; 委派...为代表, 任命	subordinate 英 [səˈbɔ:dɪnət] 美 [səˈbɔ:rdɪnət] adj. 从属的, 隶属的; 次要的 n. 部属, 下属, 下级; 从属, 次要 v. 使...居下位; 使...服从

克利斯提尼在雅典创造民主方面的主要贡献是: 完成弱化家族结构的漫长过程, 尤其是在贵族

批注 [9]: **point of entry**
切入点

批注 [10]: 阅读理解要专注!!!
(看这句话老是分神)

批注 [11]: **citizenry**
英 ['sɪtɪzənri] 美 ['sɪtɪzənri]
•n. 市民; 公民

批注 [12]: ★这段在说什么?
接着 Cleisthenes 的工作继续说;
首先说了主要贡献(影响), 引出 demes; 【题】
然后继续说 demes 的效果;
接着说 demes 在管理方面的表现 【题】。

当中。他在贵族的传统领地设置行政单位，被称为 **demes** 的地方化的**人民公社**，这成为雅典所有公民生活和大多数宗教生活的切入点。**在人民公社之上**，他创建了 10 个人口大致相等的人工部落。**从人民公社中**，通过选举或挑选，成立了 500 名成员组成的新委员会，6000 名法庭陪审员，10 位将军，数百名委员。议会在所有问题上都是至高无上的，但在实践中把它的权力下放给了附属机构，如理事会，负责为议会和法庭的会议准备会议议程，而法院是处理大多数司法事务的。各委员会作为执行部门，负责执行议会的政策，监督食品和水的供应，以及公共建筑。这种公民大规模参与的政府将雅典城邦的民主制度和其他的缺少自由的管理方式区分开来。

The **effect** of **Cleisthenes'** reforms was to establish the **superiority** of the Athenian community as a whole over local institutions without destroying them. **National politics** rather than local or deme politics became the **focal** point. At the same time, entry into national politics began at the deme level and **gave local loyalty a new focus**: Athens itself. Over the next two centuries the **implications** of Cleisthenes' reforms were fully **exploited**. ★

克利斯提尼改革的**作用**就是要建立作为整体的雅典社会高于地方机构的**优越性**，但不摧毁地方机构。**国家政治**而不是局部或群政治成为焦点。同时，进入国家政治开始于人民公社，本地化的忠诚也有了新的焦点：雅典本身。在接下来的两个世纪，克利斯提尼改革的意义被充分利用。

focal 英 ['fəʊkl] 美 ['foukl] adj. 焦点的，在焦点上的；灶的，病灶的	implication 英 [ˌɪmplɪ'keɪʃn] 美 [ˌɪmplɪ'keɪʃn] n. 含义；暗示；牵连，卷入；可能的结果，影响
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During the fifth century B.C., the **council** of 500 **was extremely influential in** shaping policy. In the next century, however, it was the mature assembly that **took on decision-making responsibility**. By any measure **other than that of the aristocrats**, who had been **upstaged** by the **supposedly** inferior "people", the Athenian democracy was a **stunning** success. **Never before, or since**, have so many people been involved in the serious business of self-governance. **It was precisely this opportunity to** participate in public life **that provided a stimulus for** the brilliant **unfolding** of classical Greek culture. ★

upstage 英 [ˌʌp'steɪdʒ] 美 [ˌʌp'steɪdʒ] vt. 抢…镜头 ；使相形见绌 adj. 自负的；在舞台后部的 adv. 在舞台后方 n. 舞台后部	stunning 英 ['stʌnɪŋ] 美 ['stʌnɪŋ] adj. 极好的 ；使人晕倒的；震耳欲聋的 v. 把…打昏；使震耳欲聋；使大吃一惊（stun 的 ing 形式）
supposedly 英 [sə'pəʊzɪdli] 美 [sə'pəʊzɪdli] adv. 可能 ；按照推测；恐怕	unfolding 英 [ʌn'fəʊldɪŋ] 美 [ʌn'foldɪŋ] v. 展开，打开；透露，展现；逐渐明朗；使传开；发生；被披露，被呈现（unfold 的现在分词）

在公元前第五世纪，500 个委员会在制定政策时极有影响。然而，在下个世纪，承担决策责

批注 [13]: ★这段在说什么？

较短，主要说 Cleisthenes 改革的作用；也是对前文的一个小总结【题】。

批注 [14]: **Never before, or since.**

以前没有，以后也没有
(前无古人，后无来者！)

批注 [15]: ★这段在说什么？

较短，主要做总结。
首先，Council – mature assembly 的演变；
总览一下全文的重点工作的主要作用。
【题】。

任的是成熟的议会。通过贵族以外的任何措施，贵族们已经被所谓的下等人抢去风头，雅典民主政治是一个惊人的成功。从来没有，或自那以后，有这么多的人参与了自治管理这件严肃的事情。**Indeed, at the height of Athenian democracy there was no government separate from its citizenry.** 正是这个参与到公共生活中的机会，为古典希腊文化的精彩演变提供了一个刺激。

批注 [16]: indeed

英 [ɪn'di:d] 美 [ɪn'di:d]

•adv. 的确；实在；真正地；甚至

•int. 真的（表示惊讶、怀疑、讽刺等）

TPO 40 – 2 Latitude and Biodiversity

纬度和生物多样性

When we look at the way in which biodiversity (biological diversity) is distributed over the land surface of the planet, we find that it is far from even. The tropics contain many more species overall than an equivalent area at the higher latitudes. This seems to be true for many different groups of animals and plants.

当我们着眼于生物多样性在地球表面分布的方式，我们发现，它是非常不平均的。热带地区比一个同等条件的高纬度地区包含更多的物种。对于许多不同的动物和植物似乎都是这样。

Why is it that higher latitudes have lower diversities than the tropics? Perhaps it is simply a matter of land area. The tropics contain a larger surface area of land than higher latitudes—a fact that is not always evident when we examine commonly used projections of Earth's curved surface, since this tends to exaggerate the areas of land in the higher latitudes—and some biogeographers regard the differences in diversity as a reflection of this effect. But an analysis of the data by biologist Klaus Rohde does not support this explanation. Although area may contribute to biodiversity, it is certainly not the whole story; otherwise, large landmasses would always be richer in species.

为什么高纬度比热带多样性要低？也许这只是一个土地面积的问题。热带地区比高纬度地区拥有更大面积的土地—当我们检查最常用的地球曲面的投影，这个事实并不总是显而易见的，因为这往往夸大高纬度的土地面积—并且一些生物地理学家认为这种多样性的差异是这种影响的反映。但由生物学家克劳斯罗德数据分析不支持这样的解释。虽然面积可能有助于生物多样性，这当然不是全部的原因；不然的话，大的陆地面积会含有更丰富的物种。

Productivity seems to be involved instead, though perhaps its influence is indirect. Where conditions are most suitable for plant growth—that is, where temperatures are relatively high and uniform and where there is an ample supply of water—one usually finds large masses of vegetation. This leads to a complex structure in the layers of plant material. In a tropical rain forest, for example, a very large quantity of plant material builds up above the surface of the ground. There is also a large mass of material, developed below ground as root tissues, but this is less apparent. Careful analysis of the aboveground material reveals that it is arranged in a series of layers, the precise number of layers varying with age and the nature of the forest. The arrangement of the biological mass ("biomass") of the vegetation into layered forms is termed its "structure" (as opposed to its "composition," which refers to the species of organisms forming the community). Structure is essentially the architecture of vegetation, and as in the case of some tropical forests, it can be extremely complicated. In a mature floodplain tropical forest in the Amazon River basin, the canopy (the uppermost layers of a forest, formed by the crowns of trees) takes on a stratified structure. There are three clear peaks in leaf cover at heights of approximately 3, 6, and 30 meters above the ground; and the very highest layer, at 50 meters, corresponds to the very tall trees that stand free of the main canopy and form an open layer of their own. So, such a forest contains essentially four layers of canopy. Forests in temperate lands often have just two canopy layers, so they have much less complex architecture.

这似乎牵涉到生产率，但也许它的影响是间接的。在最适合植物生长的地方——也就是那些温度较高较均匀的地方，有充足的水供应——通常会发现大量的植被。这导致了植物体有一个复杂的层结构。例如，在热带雨林中，大量的植物体聚集在地面之上。也有大量的植物体，在地下成为根组织，但这是不太明显的。仔细分析上述地面的植物体显示，它被布置在一系列的层中，精确的数量由于不同的层的年龄和森林的种类而有所不同。植被的生物量（“生物量”）的排列形式被称为“结构”（和“组成”相对立，“组成”是指形成群落的生物的种类）。结构本质上是植被的架构，在热带森林的条件下，它可以是非常复杂的。在亚马逊流域的一个成熟的洪泛区热带森林，树冠（森林最上面的层，由树的冠构成）采取分层结构。在地面以上大约 3 米、6 米、和 30 米的高度，树冠有三个明显的峰在：50 米的最高层对应着非常高的树木，它们摆脱主冠的遮盖站立着，并且形成自己的开放层。所以，这样的森林基本上包含四层的树冠。温带的森林通常只有 2 个冠层，所以它们的结构就没有那么复杂。

Structure has a strong influence on the animal life inhabiting a site. It forms the spatial environment within which an animal feeds, moves around, shelters, lives, and breeds. It even affects the climate on a very local level (the "microclimate") by influencing light intensity, humidity, and both the range and extremes of temperature. An area of grassland vegetation with very simple structure, for example, has a very different microclimate at the ground level from that experienced in the upper canopy. Wind speeds are lower, temperatures are lower during the day (but warmer at night), and the relative humidity is much greater near the ground. The complexity of the microclimate is closely related to the complexity of structure in vegetation, and generally speaking, the more complex the structure of vegetation, the more species of animal are able to make a living there. The high plant biomass of the tropics leads to a greater spatial complexity in the environment, and this leads to a higher potential for diversity in the living things that can occupy a region. The climates of the higher latitudes are generally less favorable for the accumulation of large quantities of biomass; hence, the structure of vegetation is simpler and the animal diversity is consequently lower.

结构对动物的生活有很大的影响。它构成了动物进食、移动、躲避、生活和繁殖的空间环境。通过影响到光照强度、湿度以及温度的范围和极值，它甚至非常本地化地影响到当地气候（微观气候）。例如，一个非常简单结构的草地植被区域，和那些有上层树冠的区域在地表有着非常不同的微观气候。（后者）的风速较低，白天气温较低(但夜间气温较温暖)，地面的相对湿度也更大。小气候的复杂性与植被结构的复杂程度密切相关，一般而言，植被的结构越复杂，在那生活的动物的种类就越多。热带植物的大生物量导致更高的环境空间复杂度，这导致了占据一个区域的更高生物多样性的可能性。高纬度地区的气候条件一般不利于大量生物量的积累，因此，植被结构简单，动物的多样性也较低。

TPO 40 – 3 Amphibian Thermoregulation 两栖动物的体温调节

In contrast to mammals and birds, amphibians are unable to produce thermal energy through their metabolic activity, which would allow them to regulate their body temperature independent of the surrounding or ambient temperature. However, the idea that amphibians have no control whatsoever over their body temperature has been proven false because their body temperature does not always correspond to the surrounding temperature. While amphibians are poor thermoregulators, they do exercise control over their body temperature to a limited degree.

与哺乳动物和鸟类相反，两栖类动物不能通过它们的代谢活动产生热能，代谢活动允许鸟类和哺乳动物脱离周围环境温度调节体温。然而，两栖类动物完全不能控制他们的体温的说法已被证明是假的，因为他们的体温并不总是对应于周围的温度。尽管两栖类在温度调节上比较薄弱，他们会在有限的程度上控制他们的身体温度。

Physiological adaptations can assist amphibians in colonizing habitats where extreme conditions prevail. The tolerance range in body temperature represents the range of temperatures within which a species can survive. One species of North American newt is still active when temperatures drop to -2°C while one South American frog feels comfortable even when temperatures rise to 41°C —the highest body temperature measured in a free-ranging amphibian. Recently it has been shown that some North American frog and toad species can survive up to five days with a body temperature of -6°C with approximately one-third of their body fluids frozen. The other tissues are protected because they contain the frost-protective agents glycerin or glucose. Additionally, in many species the tolerance boundaries are flexible and can change as a result of acclimatization (long-term exposure to particular conditions).

生理适应性可以帮助两栖动物在极端条件的栖息地生存。体温的耐受范围代表一个物种可以生存的温度范围。当温度降到 -2°C 时，一种北美蝾螈依然活跃，而在即使温度上升到 41°C ，南美洲青蛙依然感觉舒适，这是在自由放养的两栖动物中测试到的最高体温。最近有证据表明，一些北美青蛙和蟾蜍的物种可以在体温 -6°C 并且大约三分之一的体液冻结的情况下生存五天。它们的其他组织受到保护，因为这些组织包含防冻剂甘油或葡萄糖。此外，许多物种的忍受极限是弹性的，可以适应变化而变化（长期暴露于特定的条件下）。

Frog species that remain exposed to the sun despite high diurnal (daytime) temperatures exhibit some fascinating modifications in the skin structure that function as morphological adaptations. Most amphibian skin is fully water permeable and is therefore not a barrier against evaporation or solar radiation. The African savanna frog *Hyperolius viridiflavus* stores guanine crystals in its skin, which enable it to better reflect solar radiation, thus providing protection against overheating. The tree frog *Phyllomedusa sauvagei* responds to evaporative losses with gland secretions that provide a greasy film over its entire body that helps prevent desiccation (dehydration).

尽管白天温度高，暴露在太阳下的青蛙物种在皮肤结构中产生了一些有趣的改变，其作用是形态适应。大多数两栖动物的皮肤是完全透水性的，因此不是一种阻挡蒸发或太阳辐射的屏障。非洲大草原的青蛙 *Hyperolius viridiflavus* 在其皮肤里储存嘌呤晶体，使它能够更好地反射太

阳辐射，从而提供对过高温度的保护。树蛙 *Phyllomedusa sauvagii* 应对蒸发损失的方法是通过腺分泌物在其整个身体提供油脂薄膜，有助于防止脱水(脱水)。

However, **behavior is by far the most important factor in** thermoregulation. The principal elements in **behavioral** thermoregulation are **basking** (**heliothermy**), heat exchange with **substrates** such as rock or earth (**thigmothermy**), and **diurnal** and annual avoidance behaviors, which include moving to shelter during the day for cooling and **hibernating** or **estivating** (reducing activity during cold or hot weather, respectively). **Heliothermy is especially common among** frogs and toads: it allows them to **increase their body temperature by** more than 10°C. The Andean toad *Bufo spinulosus* **exposes itself immediately after sunrise on** moist ground and attains **its preferred** body temperature by this means, **long before either ground or air is correspondingly warmed. A positive side effect of this approach is that** it accelerates the digestion of the **prey consumed overnight**, thus also accelerating growth. **Thigmothermy** is a behavior **present?** in most amphibians, although pressing against the ground **serves a dual purpose**: heat absorption by **conductivity** and water absorption through the skin. The effect of **thigmothermy is especially evident** in the Andean toad *during rainfall*: its body temperature **corresponds to** the temperature of the warm earth and **not to** the **much cooler** air temperature.

然而，**行为是迄今为止**在体温调节中**最重要的因素**。**行为的**体温调节中最主要元素的是**取暖** (heliothermy)，与基材如岩土热交换 (thigmothermy)，和每日或每年的逃避行为，包括移动到底护地去冷却和冬眠或夏眠 (分别在过冷或热的天气减少活动)。heliothermy 在青蛙和蟾蜍中是特别常见的：这使得他们能够提高体温超过 10° C。安第斯蟾蜍 *spinulosus* 在日出后立即将自身暴露在潮湿地面上，**早早在地面或空气温度升高之前**，通过这种方式达到其喜好的体温。这种方法的一个**正面的副作用**是，它加速了晚上对猎物的消化，从而也加速增长。**thigmothermy** 是大多数两栖动物常见的行为，虽然压在地上有双重目的：通过**导电性**吸热和通过皮肤吸收水分。在降雨的时候，**thigmothermy** 的效果在安第斯蟾蜍尤其明显：它依据温暖的地面温度调节体温，而不是依据更冷的空气温度。

Avoidance behavior occurs whenever physiological and morphological adaptations are insufficient to maintain body temperature within the vital range. Nocturnal activity in amphibians with low tolerance for high ambient temperatures is a typical thermoregulatory behavior of avoidance. Seasonal avoidance behavior is extremely important in many amphibians. Species whose habitat lies in the temperate latitudes are confronted by lethal low temperatures in winter, while species dwelling in arid and semi-arid regions are exposed to long dry, hot periods in summer.

避免行为会在生理和形态的适应不足以将身体的温度保持在重要范围内时发生。对周围温度有着比较低的耐受性的两栖动物的夜间活动是一种典型的逃避式体温调节行为。季节性回避行为在许多两栖类动物中极为重要。温带地区的物种的栖息地在冬季会面临着致命的低温，而居住在干旱和半干旱地区的物种会暴露于长期干燥炎热的夏天。

In amphibians hibernation occurs in mud or deep holes away from frost. North of the Pyrenees Mountains, the natterjack toad offers a good example of hibernation, passing the

批注 [17]: **bask**

英 [bɑːsk] 美 [bæsk]

- vi. 晒太阳；取暖；愉快或舒适
- vt. 使...晒太阳；使暖和而舒适

批注 [18]: **substrate**

英 ['sʌbstreɪt] 美 ['sʌbstreɪt]

- n. 基质；基片；底层（等于 substratum）；酶作用物

批注 [19]: **diurnal**

英 [daɪˈɜːnl] 美 [daɪˈɜːrnl]

- adj. 白天的；每日的，一日间的
- n. 日记账；日报，日刊

nocturnal

英 [nɒkˈtɜːnl] 美 [nɑːkˈtɜːrnl]

- adj. 夜的；夜曲的；夜间发生的

批注 [20]: **estivate**

英 ['iːstɪveɪt] 美 ['estɪvet]

- v. (动物) 夏眠，夏蛰；过夏季

批注 [21]: **提出猜想 (后续验证)**：

一般进行比较的时候，比如句式：

sb. do sth. rather than **do sth.**

corresponds to sth. not to **sth.**

后面的成分都会和前面形成一种对比。

比如这个句子中：**much cooler** 和前面的 **warm** 形成对比。

winter dug deep into sandy ground. Conversely, natterjacks in southern Spain remain active during the mild winters common to the region and are instead forced into inactivity during the dry, hot summer season. Summer estivation also occurs by burrowing into the ground or hiding in cool, deep rock crevasses to avoid desiccation and lethal ambient temperatures. Amphibians are therefore hardly at the mercy of ambient temperatures, since by means of the mechanisms described above they are more than able to exercise some control over their body temperature.

两栖动物的冬眠发生在泥里或深洞这种远离霜冻的地方。比利牛斯山脉以北，natterjack 蟾蜍为冬眠提供了一个很好的例子，通过挖掘到沙地深处度过冬季。相反，在西班牙南部的 natterjacks 在该地区常见的暖冬仍然活跃着，但是不得不在干燥、炎热的夏季处于休眠状态。夏眠也是通过钻入地下或隐藏在阴凉、深处的岩体裂隙来实现，这样能避免干燥和致死温度。因此，两栖类动物是不受环境温度控制的，因为通过上述的机制，他们对他们身体的温度进行了控制。