

1 The evolution of beauty

1 美的演变

Since the beginning of human history, we have wrestled with what it means to be beautiful. We're all vain in some way and seem to care too much about the way we look. Perhaps that's why we've all had moments when we felt like we're falling short of some clearly defined standard of beauty, but the reality is that beauty standards are fluid. What is considered beautiful at one moment is despised in another. Over the course of history, our concept of beauty has undergone a constant evolution.

从人类历史的开始，我们就一直在与美丽的含义作斗争。我们在某些方面都很虚荣，似乎太在意自己的外表了。也许这就是为什么我们都有过这样的时刻：我们觉得自己没有达到某个明确定义的美的标准，但现实是，美的标准是不停变化的。在某一时刻被认为是美的东西在另一时刻被鄙视。在历史的长河中，我们对美的概念经历了不断的演变。

The ancient Egyptians, back in the third millennium BC, prized slim waists over heavier ones. In contrast, the ancient Greeks regarded heavy, broad hips as a defining characteristic of beautiful women. Despite these differences, both cultures applied make-up to highlight certain facial features, particularly the eyes. In Greek art, beautiful women often appear with dark-rimmed eyes. Similarly, in ancient Egypt, thick black eyeliner was considered beautiful for both men and women.

早在公元前三千年，古埃及人就偏爱纤细的腰部而不是较粗的腰部。相比之下，古希腊人则把厚重、宽大的臀部视为美女的一个决定性特征。尽管存在这些差异，两种文化都通过化妆来突出某些面部特征，尤其是眼睛。在希腊艺术中，漂亮的女人经常带着黑眼圈出现。同样，在古埃及，浓密的黑色眼线被认为对男人和女人都很漂亮。

In the Han Dynasty, which lasted from the third century BC to the third century AD, pale skin was regarded as beautiful, in large part because lighter skin was associated with the upper class. The wealthier members of society were more likely to have pale skin because they were not required to labour outdoors, and so they had less exposure to the sun. A delicate frame was another marker of great beauty for women in this era. However, this conception of beauty did not last forever. In the Tang Dynasty, a few hundred years later, seldom did one see a slender woman because wider waists became more desirable.

从公元前三世纪到公元三世纪的汉朝，白皙的皮肤被认为是美丽的，这在很大程度上是因为较浅的皮肤与上层社会联系在一起。社会上较富裕的人更可能有着白皙的皮肤，因为他们不需要在户外劳动，因此他们很少暴露在阳光下。精致的身躯是这个时代女性美丽的另一个标志。然而，这种美的观念并没有永远延续下去。在几百年后的唐朝，很少有人看到苗条的女人，因为更宽的腰围更受欢迎。

Japan, meanwhile, had its own notions of beauty. In the Heian period (794-1185), one of the most sought-after features in a woman was very long, dark hair. Women liked to grow their hair all the way down to their—toes and even beyond. If a woman had grown her hair very long, she would instantly have been recognized as a member of the upper class. In this era, women also had particular ideas about how to style their eyebrows. They often shaved off their natural eyebrows and drew in a new set (sometimes called 'butterfly' eyebrows) much higher up on the forehead.

与此同时，日本也有自己的美丽观。在平安时代（794-1185），女性最受欢迎的特征之一是长而黑的头发。女人喜欢把头发留长到脚趾甚至更长。如果一个女人的头发长得很长，她马上就能被认作是上流社会的一员。在这个时代，女性对如何设计眉毛也有特别的想法。他们经常剃掉天生的眉毛，在额头上画一组高得多的新眉毛（有时称为“蝴蝶”眉毛）。

In Renaissance Europe, which roughly began in 1300 and lasted until 1700, it was plump figures that were held up as the standard of beauty. Paintings from this period depict women and goddesses as curvaceous,

with rounded hips and stomachs. Such curves were seen as symbols of fertility.

在文艺复兴时期的欧洲，大致始于 1300 年，一直持续到 1700 年，丰满的身材被视为美的标准。这一时期的绘画描绘了女性和女神的曲线美，臀部和腹部圆润。这种曲线被视为生育能力的象征。

The ideal body type changed again in the twentieth century. During the 1920s, a period commonly referred to as the Jazz Age, a boyish figure on a woman was all the rage. This was in direct contrast to the curvier figure favoured in earlier centuries. This revolutionary period also saw women cutting their hair short and wearing short skirts to show off their legs. Throughout the century, however, beauty standards shifted many times over. By the end of the century, beauty came to be associated with super skinny models. This has persisted for several decades, but like any other notions of beauty, it will certainly prove to be fleeting.

理想的身体类型在二十世纪又发生了变化。在 20 世纪 20 年代，一个通常被称为爵士乐时代的时期，一个女人身上的男孩形象风靡一时。这与前几个世纪人们喜欢的曲线型身材形成了直接对比。在这个革命时期，妇女们也剪短发，穿短裙来炫耀自己的双腿。然而，在整个世纪里，美容标准发生了多次变化。到本世纪末，美貌开始与超瘦模特联系在一起。这已经持续了几十年，但和其他任何关于美的概念一样，它肯定会被证明是转瞬即逝的。

It's easy to get swept up in the beauty standards of our time. These days, we can fall into the trap of conforming and thinking that if we were skinnier, we would be more beautiful. We might even start thinking unhealthy thoughts, like 'If I had eaten less, I would have achieved a higher standard of beauty.' It's important to remember that beauty is in the eye of the beholder, and rarely does one type of beauty last forever. Beauty is not a fixed concept, but one that is constantly evolving with time.

我们很容易被这个时代的美丽标准所左右。现在，我们可能会陷入顺从的陷阱，认为如果我们更瘦，我们会更漂亮。我们甚至可能开始思考一些不健康的想法，比如“如果我少吃一点，我就会达到一个更高的美的标准。”重要的是要记住，美是在旁观者的眼中的，很少有一种美能永恒存在。美不是一个固定的概念，而是一个随着时间不断演变的概念。

2 The Red-Headed League: an adaptation

2 红头发联盟：改编

One afternoon, I was introduced to a Mr James Wilson as Sherlock Holmes' 'capable associate'. Attempting to act the part, I scrutinized Mr Wilson as he pulled out his phone. Cottoning on to my attempt, Sherlock shook his head.

一天下午，我被称为福尔摩斯的“能干助手”，介绍给詹姆斯·威尔逊先生。为了扮演这个角色，我仔细观察着威尔逊先生掏出手机。夏洛克明白了我的企图，摇了摇头。

'Beyond the likelihood that Mr Wilson's job involves a mobile phone, I deduce little else.'

除了威尔逊先生的工作可能涉及到一部手机之外，我几乎没有别的推断。

'How on earth did you know that?' quizzed Mr Wilson.

你究竟是怎么知道的？威尔逊先生问道。

'The clumsy handling of your everyday phone,' Sherlock explained, pointing at Mr Wilson's awkward double-handed grip, 'betrays your unfamiliarity with it. Yet you are proficient in thumb typing, which suggests frequent operation of another device—a work phone, perhaps? Anyway, please begin.'

夏洛克指着威尔逊先生笨拙的双手解释道：日常电话的笨拙处理暴露了你对它的不熟悉。然而，你精通拇指打字，这意味着频繁操作另一种设备——也许是工作电话？不管怎样，请开始吧

'Right ... I run my own online shopping platform, but business has been slow. Two months ago, we moved to a cheap basement office. I've cut employees down to a single assistant—on minimum wages too. His name's Spaulding. Last month, he showed me this advertisement.' Mr Wilson handed us his phone.

对。我经营自己的网上购物平台，但生意一直没有进展。两个月前，我们搬到了一间廉价的地下室办公室。我也把雇员削减到一个助手，只给与最低工资。他叫斯伯丁。上个月，他给我看了这则广告。

'This charity, the Red-Headed League, was hiring a social media marketer. They aim to "combat prejudice against redheads", so the only job requirement was having red hair.'

这家慈善机构“红头发联盟”希望雇佣一名社交媒体营销人员。他们的目标是“消除对红发人的偏见”，所以唯一的工作要求就是红头发。

'You do have the most blazingly crimson locks,' observed Sherlock.

你的头发确实是最鲜艳的深红色，夏洛克说。

'That's what Mr Andrews said. He runs the charity. Despite my existing employment, he made an exception and hired me on the spot.'

安德鲁斯先生就是这么说的。他经营慈善事业。尽管我现在有工作，他还是破例雇佣了我

'What did the work entail?' Sherlock enquired.

这工作需要做些什么？夏洛克问道。

'Managing the charity's social media account at their office four hours a day. I looked up random redheads and sent friend requests. The monthly pay was high and I was desperate, so although I had no colleagues or meetings, I didn't worry much about it until this morning, when I encountered a locked office door bearing this note.'

每天 4 小时在他们的办公室管理慈善机构的社交媒体账户。我随机查找红头发的人，并发送了朋友请

求。月薪很高，我非常努力，虽然我没有同事，也没有会议，但直到今天早上，我遇到一扇锁着的办公室门，上面写着这张纸条，我才开始担心

Sherlock and I glanced at the message, 'the Red-Headed League is disbanded', and burst out laughing at the silliness of it all. Mr Wilson blushed and began to me his leave, but Sherlock interrupted.

我和夏洛克看了一眼“红头发联盟解散”的信息，开始大笑起来。威尔逊先生脸红了，开始向我告别，但夏洛克打断了他的话。

'I apologize, your case is most refreshingly unusual. Were you able to contact Mr Andrews?'

我很抱歉，你的案子非同寻常，令人耳目一新。你能联系安德鲁斯先生吗？

'No. The security guard said there was no such person.'

不能。保安说没有这样的人。

'Thank you, Mr Wilson. You shall have my opinion within two days.'

谢谢你，威尔逊先生。我会在两天内告诉你我的看法

Soon, Sherlock and I found ourselves at the basement office of Mr Wilson's online shopping enterprise. A smart-looking young man answered the door instantly.

很快，我和夏洛克来到威尔逊先生网上购物公司的地下室。一个相貌英俊的年轻人立刻开门。

'Mr Jones?'

琼斯先生？

'No, Spaulding,' the man snapped.

不，斯派丁，那人厉声说。

'Wrong address. Sorry!'

搞错地址了，对不起！

As we left, I speculated aloud on Spaulding's unwelcoming demeanour.

当我们离开时，我开始大声猜测斯伯丁不受欢迎的举止。

'It was his trousers, Watson,' corrected Sherlock. 'They were muddy.'

是他的裤子，华生，夏洛克纠正道，它们很泥泞。

Sherlock was walking in a bizarre, stomping manner. We rounded the corner behind Mr Wilson's office, passing by a newsagent's, the City Bank and three fashion boutiques. The stomping ended abruptly in a telephone box.

夏洛克以一种奇怪的，跺脚的方式走着。我们绕过威尔逊先生办公室后面的拐角，经过一家报社、城市银行和三家时装精品店。夏洛克突然在一个电话亭里停止踩踏。

'A robbery is underway at the City Bank. Two male suspects, average build. Hurry and capture them within the half hour.'

一场抢劫正在城市银行进行。两个男性嫌犯，中等身材。赶快在半小时内抓获他们。

I stared, wide-eyed, as Sherlock hung up.

夏洛克挂断电话时，我瞪大了眼睛。

'Elementary, Watson,' he explained in his usual self-assured tone. 'It begins with the assistant, who accepted ridiculously low wages in order to pitch an even more ridiculous job to Mr Wilson. Why pay someone handsomely to kill time on a phone? Because he has the reddest hair? Please. They needed him away from his office!'

基本的，华生，他用他一贯自信的口吻解释道，从助理开始，他接受了低得离谱的工资，以便给威尔逊先生安排一份更荒谬的工作。为什么要花很多钱在电话上打发时间呢？因为他有最红的头发？拜托。他们需要他离开办公室。

'So the Red-Headed League ...'

所以红头发联盟呢？

'Never existed. But what of the motive? Mr Wilson is struggling financially. His office surely contains little of value. What else can one do in a basement? Dig a tunnel, perhaps; that would explain Spaulding's muddy trousers. By stomping on the ground, I determined which direction the tunnel stretched. And guess what's behind Mr Wilson's office?'

根本不存在。但是动机呢？威尔逊先生正在财政上挣扎。他的办公室毫无价值。在地下室还能做什么？也许挖一条隧道；这就可以解释斯斯伯丁那条泥泞的裤子了。我在地上跺了跺脚，确定了隧道向哪个方向延伸。猜猜威尔逊先生办公室后面是什么？

'The City Bank!' I exclaimed.

城市银行！”我叫道。

Sherlock nodded. 'Today's disbanding of the Red-Headed League means Mr Wilson is of no further use. In other words, the tunnel is complete, and our culprits are on the move.'

夏洛克点点头，今天红头发联盟的解散意味着威尔逊先生不再有用。换言之，隧道已经完工，我们的罪犯正在行动。

Hungry Plants 饥饿的植物

Nature is beautiful, but it's also deadly. As we have already seen, everything in nature must fight to survive. Some things do their best to hunt and kill, while others do their best to protect themselves.

大自然是美丽的，但它也是致命的。正如我们已经看到的，自然界的一切都必须为了生存而斗争。有些东西尽全力猎杀，而另一些则尽全力保护自己。

Plants are no different. Plants develop all kinds of defenses in order to stay alive. However, some plants don't just have defenses. Some plants are carnivorous. If something is carnivorous, it eats meat.

Carnivorous plants trap and eat insects.

植物也一样。植物为了生存而发展各种各样的防御。然而，有些植物不仅仅有防御能力。有些植物是食肉的。如果什么东西是食肉的，那它就会吃肉。食肉植物捕食昆虫。

Carnivorous plants have several techniques that they use to trap insects. One technique is called the 'flypaper' technique. Flypaper is the sticky paper that people use to catch flies. Flypaper plants have a sticky surface. When an insect lands on that surface, it can't escape. After the animal is stuck, the plant will slowly curl its branch and eat the insect.

食肉植物有几种诱捕昆虫的技术。一种技术叫做“捕蝇纸”技术。捕蝇纸是人们用来抓苍蝇的粘性纸。捕蝇纸植物的表面很粘。当一只昆虫降落在那表面时，它无法逃脱。动物被卡住后，植物会慢慢卷曲树枝吃掉昆虫。

Another technique is called the 'snap trap.' If something 'snaps,' it opens or closes very quickly. There are only two 'snap trap' plants. One of them is the Venus fly trap, which is probably the most famous carnivorous plant. When an insect lands on the Venus flytrap, the flytrap's mouth snaps closed. Many people say that it looks like an animal eating its prey.

另一种技术叫做“夹状捕虫器”，如果有东西被“捕捉”，它会很快打开或关闭。只有两种植物具有夹状捕虫器。其中之一是捕蝇草，它可能是最著名的食肉植物。当一只昆虫落在捕蝇草上时，捕蝇草的嘴会啪的一声关上。许多人说它看起来像一只吃猎物的动物。

Lobster trap plants have another technique. A lobster trap is a trap that's easy to enter but almost impossible to exit. After an insect enters a lobster trap plant, it cannot escape. This is because the inside of the plant has tiny hairs that block the exit. It has other hairs that force the insect to move towards the plant's stomach. Then the plant digests the insect. The plants are called lobster traps because people use similar traps to catch lobsters.

龙虾笼状捕虫器植物还有另一种技术。龙虾笼状捕虫器是一种容易进入但几乎不可能退出的陷阱。昆虫进入捕虫器后，就无法逃脱了。这是因为植物的内部有细小的毛发阻挡了出口。它还有其他的毛发迫使昆虫向植物的胃移动。然后植物会消化昆虫。这种植物被称为龙虾笼状捕虫器植物，是因为人们用类似的陷阱捕捉龙虾。

We don't notice carnivorous plants very often, but they're actually quite common. In fact, there are about 630 different carnivorous plants around the world.

我们并不经常注意到食肉植物，但它们其实很常见。事实上，全世界大约有 630 种不同的食肉植物。

In a previous chapter, we told you that a myth is an incorrect fact that many people believe. There are a lot of myths about the human brain. In this article, we're going to tell you a little about these myths, and we're going to give you the truth.

在上一章中，我们告诉过你，谣言是一个不正确的事实，但许多人相信。关于人脑有很多谣言。在这篇文章中，我们将告诉你一些关于这些谣言的事情，我们将告诉你真相。

One of the biggest myths is that we only use 10 percent of our brains. The next part of that myth is that if we can learn to use the rest of our brains, then we'll be much smarter. People say this all the time, but it's absolutely not true! The truth is that although we don't know everything about the human brain, we know that each part of it has an important function. Modern scientists call the "10 percent myth" ridiculous. 最大的谣言之一是我们只使用了 10% 的大脑。这个误解的下一部分是，如果我们能学会使用大脑的其他部分，那么我们会更聪明。人们总是这么说，但绝对不是真的！事实是，尽管我们并不完全了解人脑，但我们知道人脑的每一部分都有重要的功能。现代科学家称“百分之十”荒谬可笑。

The other most popular myth is about being "right brained" or "left brained." According to this myth, people who use the right side of their brains tend to be more artistic and creative. People who use the left side of their brains tend to be better at math and science. This myth is as popular as the 10 percent myth, and it's also wrong. In 2013, a study at an American university examined the right brain and left brain myth. According to the study, we use both sides of our brains equally.

另一个最流行的谣言是“右脑”或“左脑”。根据这个神话，使用右脑的人往往更具艺术性和创造性。使用左脑的人往往更擅长数学和科学。这个谣言和百分之十的谣言一样流行，而且也是错误的。2013，美国大学的一项研究对右脑和左脑神话进行了研究。根据这项研究，我们平均使用大脑的两侧。

It's true that we use different parts of our brains for different things: We use our left side for language more, and our right side when we need to pay attention. But there is no evidence that creative people use the right side more, or that scientific people use the left side more.

的确，我们用大脑的不同部分来处理不同的事情：我们用左侧来处理更多的语言，当我们需要注意时，用右侧来处理。但是没有证据表明有创造力的人更多地使用右侧，或者说科学的人更多地使用左侧。

We've talked about myths, so let's look at a few interesting facts about the brain. First of all, the brain feels no pain. Second, about 75 percent of the brain is made of water. It's also the fattest organ in your body. Here's another interesting fact about the brain. Around the time you turn 18 years old, it stops growing. 我们已经讨论了谣言，让我们看看一些关于大脑的有趣事实。首先，大脑感觉不到疼痛。其次，大脑大约 75% 的是由水组成的。它也是你身体里最胖的器官。关于大脑还有一个有趣的事实。当你 18 岁的时候，它就停止生长了。

Turning Letters into Art 把字母变成艺术

Right now, I'm sitting at my desk and typing on my computer. Because I am writing for work, I'm using a very basic font called Times New Roman. That's the font people most often use for work and school. 现在，我正坐在办公桌前，在电脑上打字。因为我是为工作而写作，所以我使用了一种非常基本的字体，叫做 Times New Roman。这是人们在工作 and 上学时最常用的字体。

The word "font" describes the size and style of letters on a computer program. If you change your font, you change the appearance of your letters. Some fonts, like Times New Roman, Arial and Calibri look very professional. Others, like Tahoma, look like they come from old typewriters. Then there are more exotic fonts, like ALGERIAN and CASTELLAR. There are also crazy fonts. Wingding isn't even English. It just changes letters into symbols.

“字体”一词描述计算机程序中字母的大小和样式。如果你改变字体，你就改变了字母的外观。有些字体，例如 Times New Roman、Arial 和 Calibri 看起来非常专业。其他的，像 Tahoma，看起来像是来自老式打字机。还有一些更奇特的字体，比如 ALGERIAN 和 CASTELLAR。还有一些疯狂的字体。Wingding 甚至不是英文字母。它只是把字母变成符号。

Fonts are part of a kind of work called typography. Typography means arranging letters on paper. This sounds simple, but it has changed the world. In Europe, centuries ago, typography machines helped people write their ideas and spread them everywhere. Typography machines especially helped change people's ideas about politics and religion.

字体是一种叫做排版的工作的一部分。排版就是把字母排列在纸上。这听起来很简单，但它改变了世界。几个世纪前，在欧洲，印刷机帮助人们书写他们的想法，并将其传播到世界各地。印刷机尤其有助于改变人们对政治和宗教的看法。

The font can be important when you are giving a presentation or designing a Web site. In situations like those, you want to have a nice style so you can catch people's eyes. If you have the right font, you can improve the appearance of your work quite a bit.

字体在您进行演讲或设计网站时可能很重要。在这种情况下，你想有一个好的风格，这样你可以吸引人们的目光。如果你有正确的字体，你可以很大程度上改善你的作品外观。

However, there are other times when you shouldn't think about font at all. When you're preparing a document for work or school, don't use a fancy font. Instead, just use a very basic one. In those situations, the appearance of the letters is not important. You should only focus on the meaning of the words that you are writing. In fact, if you turn in a paper that has pretty font, people will probably think that you're unprofessional. Teachers often say that if a student gives them an assignment with pretty letters, they know right away that the student did a bad job. Why? The student spent too much time picking a pretty font, and not enough time working on the assignment!

然而，还有一些时候你根本不应该考虑字体。当你为工作或学校准备文件时，不要使用花里胡哨的字体。相反，只要使用一个非常基本的。在这些情况下，字母的外观并不重要。你应该只关注你所写单词的意思。事实上，如果你交的论文字体很漂亮，人们可能会认为你并不专业。老师常说，如果一个学生给他们的作业有漂亮的字体，他们马上就知道这个学生做得不好。为什么？这个学生花了太多时间挑选一个漂亮的字体，而没有足够的时间做作业！

The Heart of Europe 欧洲的心脏

Prague is the capital of the Czech Republic, and it's in the center of Europe. Prague is a place where the eastern and western parts of Europe meet. The cultures of Eastern and Western Europe are quite different, but both of them have greatly influenced Prague. And of course, Prague has its own unique culture as well. 布拉格是捷克共和国的首都，它位于欧洲的中心。布拉格是欧洲东西交汇的地方。东欧和西欧的文化差异很大，但都对布拉格产生了很大的影响。当然，布拉格也有自己独特的文化。

During World War II, many European cities were heavily bombed. However, Prague suffered very little damage during the war. As a result, all of its ancient buildings are still intact. 第二次世界大战期间，许多欧洲城市遭到严重轰炸。然而，布拉格在战争中几乎没有遭受什么损失。因此，它所有的古建筑仍然完好无损。

Old Town Square is the number one stop for tourists visiting Prague. The square is more than 800 years old; if you go there, remember that some amazing things have happened there in the past. For example, on the ground you can see 27 crosses. That's because 400 years ago, enemy soldiers executed 27 local leaders on that spot.

老城广场是游客游览布拉格的第一站。广场有 800 多年的历史；如果你去那里，记得过去那里发生过一些令人惊奇的事情。例如，在地面上你可以看到 27 个十字架。这是因为 400 年前，敌军士兵在那里处决了 27 名地方领导人。

Old Town Square has several very old and giant churches. The churches are huge and their old, dark style is a little bit scary. One of the ancient buildings there is the old town hall building. In the side of the building there's a 600 year-old clock. The clock has beautiful religious carvings, and it still works. According to the story, the government hired a man to build the clock, and after the man was done, the government blinded him. Why? They didn't want him to build a clock for anybody else!

老城广场有几个非常古老和巨大的教堂。教堂很大，他们古老的黑暗风格有点吓人。那里的古建筑之一是古老的市政厅建筑。在大楼的侧面有一个有 600 年历史的钟。这只钟有漂亮的宗教雕刻，而且它还能工作。据报道，政府雇了一个人来造钟，那人造完后，政府弄瞎了他的眼睛。为什么？他们不想让他再给别人造一个钟！

Another famous part of Prague is the Jewish Quarter. In the past, Jewish people were forced to live in this area. Other parts of Prague have huge castles and churches. Those areas are beautiful, but they might not seem real to some people. In the Jewish Quarter, the streets are narrower and the buildings are smaller. It helps visitors understand how ordinary people lived hundreds of years ago. It also has a simple but very beautiful synagogue. A synagogue is a Jewish temple.

布拉格另一个著名的地方是犹太区。过去，犹太人被迫住在这个地区。布拉格的其他地方有巨大的城堡和教堂。这些地方很漂亮，但在某些人看来可能并不真实。在犹太区，街道更窄，建筑更小。它帮助游客了解几百年前普通人的生活方式。它还有一个简单但非常漂亮的犹太教堂。犹太教会堂是犹太人的庙宇。

Here's another piece of advice for you, just in case you ever visit Prague. Try the beer. The Czech Republic is famous for having the best beer in the world!

这是给你的另一条建议，以防你去布拉格。尝尝啤酒，捷克共和国以拥有世界上最好的啤酒而闻名！

The Most Powerful Force in Space

太空中最强大的力量

A black hole is a spot in space that has incredibly powerful gravity. A black hole's gravity is so strong that it pulls everything nearby into it. It can pull stars, planets, and other things. Nothing can escape a black hole. In fact, they are so powerful that even light cannot escape them.

黑洞是空间中一个具有难以置信的强大引力的点。黑洞的引力如此之强，以至于它把附近的一切都拉进了黑洞。它可以拉动恒星，行星和其他东西。没有什么能逃过黑洞。事实上，它们是如此强大，以至于连光都无法逃脱它们。

Scientists first started talking about black holes in the year 1783. That year, one scientist said that in the universe, there might be places with gravity strong enough to trap light. However, that scientist didn't use the term "black hole." The term "black hole" was invented in 1967.

科学家们在 1783 年第一次开始讨论黑洞。那一年一位科学家说，在宇宙中，可能有一些地方的引力强到足以捕捉光。然而，这位科学家并没有使用“黑洞”这个词，“黑洞”这个词是 1967 年发明的。

Black holes are formed when a star dies. When a star dies, it collapses. When that happens, a huge amount of matter crowds into a very small space. The matter becomes very, very dense. How much matter are we talking about? Imagine a star that is the size of 10 suns. Imagine fitting that amount of matter into New York City. That is what a black hole is like. Its gravity is so powerful because it has so much matter.

黑洞是恒星死亡时形成的。当一颗恒星死了，它就会坍塌。当这种情况发生时，大量的物质聚集在一个很小的空间里。物质变得非常非常稠密。具体有多大？想象一颗恒星有 10 个太阳那么大。想象一下把这么多的物质装进纽约市。这就是黑洞的样子。它的引力如此强大是因为它有太多的物质。

However, not all black holes are huge. Scientists believe that some black holes are the size of atoms. Although these black holes are tiny, they might have the same amount of matter that a mountain has. 然而，并非所有的黑洞都是巨大的。科学家们相信，有些黑洞只有原子那么大。尽管这些黑洞很小，但它们的物质含量可能与一座山的物质含量相同。

We can't see black holes, because they don't have any light. They are completely invisible. Scientists can guess where black holes are by studying nearby stars and planets. If gravity seems to be pulling the stars and planets to one spot, then scientists believe that the spot is a black hole.

我们看不到黑洞，因为它们没有光。它们是完全看不见的。科学家可以通过研究附近的恒星和行星来猜测黑洞的位置。如果引力似乎把恒星和行星拉到了一个地方，那么科学家们相信这个地方就是一个黑洞。

Some people wonder if a black hole could ever destroy Earth. We do not need to worry about that. There is no black hole that's close enough to destroy Earth. The closest black hole is about 7,800 light years away. Also, the sun is not big enough to create a black hole.

有些人怀疑黑洞是否会毁灭地球。我们不必为此担心。没有足够近的黑洞能摧毁地球。最近的黑洞距离地球约 7800 光年。此外，太阳还不足以形成黑洞。