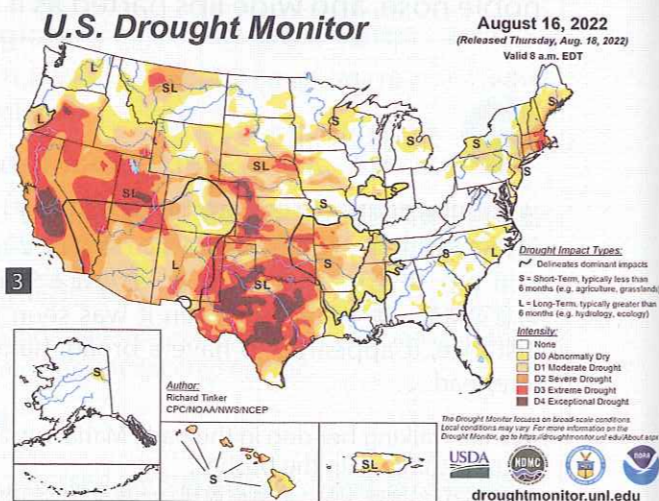


THU  
5課文朗讀 正常 Track 7  
單字朗讀 Track 8慢速 Track 55  
課程講解 Track 78

There is no doubt that climate change is having a significant effect on global weather patterns. With rising summer temperatures and decreased rainfall, **severe<sup>1</sup> droughts<sup>2</sup>** are becoming the new normal.   
5 Indeed, according to a recent UN report, the number and duration<sup>3</sup> of droughts have increased by nearly one-third globally since 2000.

The 2022 **statistics<sup>3</sup>** paint an alarming picture. Italy **declared<sup>4</sup>** a state of emergency in five regions as the worst drought in 70 years dried up its longest river. Ninety-nine percent of Portugal experienced extreme drought, with the country recording its hottest July ever. France reported its driest summer since the country began keeping records in 1958.   
10 And more than 43 percent of the US was in drought by August.

Droughts of this severity can have extreme environmental and social impacts. They **destroy** crops and starve livestock, <sup>4</sup> threatening not only the livelihood of farmers but also the **stability<sup>5</sup>** of the entire food supply chain. **Moreover<sup>6</sup>**, if water supplies are mismanaged, <sup>4</sup> the demand for this   
20



1. 義大利的特雷比亞河在二〇二二年夏天因乾旱而乾涸
2. 葡萄牙埃爾瑪爾水壩在二〇二二年二月因乾旱而水位幾乎見底
3. 美國二〇二二年八月經歷乾旱的地區，顏色越深，情況越嚴重

# Solving the Global Water Crisis

## 全球水情告急： 拯救缺水危機大作戰

—Oliver Flaherty

近年來，層出不窮的乾旱及熱浪在在顯示氣候變遷的嚴重性，這也使得許多國家面臨嚴峻的缺水問題。對此，有些國家已開始積極應對缺水危機，像是以色列進行海水淡化及新加坡的廢水再利用。然而，無論有多先進的技術，若不能從根本上改善全球暖化，缺水問題仍可能是未來生活的常態。

precious resource can result in water scarcity. Currently, it is estimated that as many as 5.7   
25 billion people could face water **shortages<sup>7</sup>** for at least one month a year by 2050.

FRI  
6課文朗讀 正常 Track 9  
單字朗讀 Track 10慢速 Track 56  
課程講解 Track 79

Fortunately, solutions to the water shortage crisis do exist. Israel, for example, has built a number of desalination <sup>4</sup> plants to turn seawater into drinking water. The country plans to **expand<sup>8</sup>** this approach by building a **pipeline<sup>9</sup>** that will desalinate water from the Mediterranean before pumping it into the Sea of Galilee, a large lake   
30 in northern Israel. It also treats and recycles almost all of its wastewater, <sup>4</sup> **putting it to use in the agricultural<sup>10</sup>** industry.

Singapore also makes the most of its limited water resources by reusing almost every drop. Wastewater is **filtered<sup>11</sup>** and then treated with UV light to make it safe for drinking. While this water is primarily used for industrial processes, it is added to **reservoirs<sup>12</sup>** in times of drought. The city-state has also been promoting water **conservation<sup>13</sup>**, <sup>4</sup> encouraging people to use water-saving devices and teaching water-saving tips.   
45

These solutions will **go a long way**   
50 toward solving water scarcity, but they don't deal with the root cause of the problem. If we are to truly **tackle<sup>14</sup>** the water crisis, we have to address the behaviors that contribute to climate change **in the first**   
55 **place.**

翻譯請見第 64 頁

補充說明

第 3 行的 rainfall [ˈren.fɔl] 指「降雨量」。

第 4 行的 normal 在此作不可數名詞，指「常態、標準」。

第 8 行的 paint a/an adj. picture 或 paint a picture of sth 表示「將……描述、展示為……」，paint an alarming picture 意思是「(情況)顯得令人擔憂」，alarming 指「令人憂慮、驚恐的」。

第 9 行的 a state of emergency 指「(國家的)緊急狀態」。

第 10 行的 dry up sth 指「使(溪、河川等)乾涸」。

第 20 行的 livelihood [ˈlɑːvli.hud] 表示「生計」。

第 21 行的 supply chain 指「供應鏈」。

第 23 行的 result in 表示「導致、造成……」，意同於第 54 行的 contribute to。

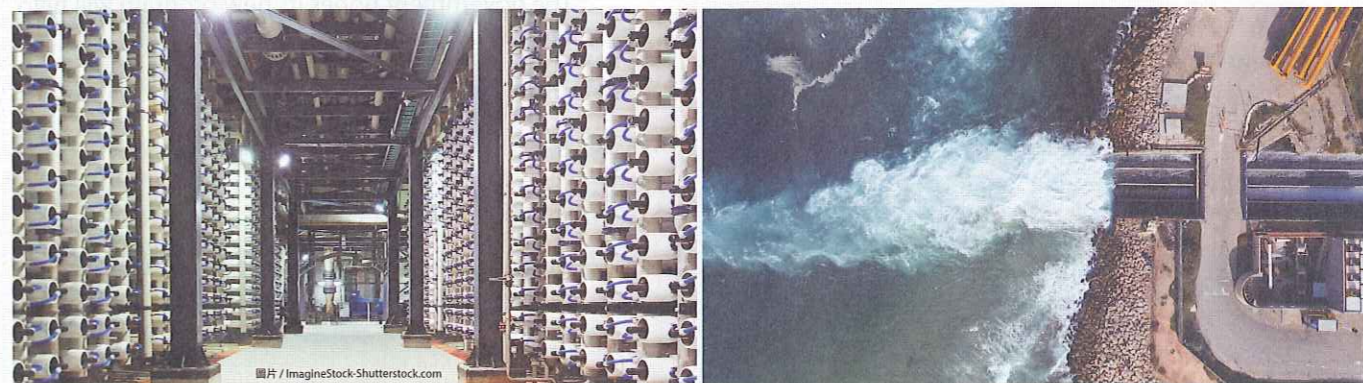
第 33 行的 the Mediterranean [ˌmɛdətəˈreɪən] 指「地中海」，亦可稱為 the Mediterranean Sea；第 34 行的 Sea of Galilee [ˌɡæləˈliː] 則指「加利利海」，是以色列最大的內陸淡水湖。

第 41 行的 UV light 為 ultraviolet light [ˌʌltrəˈvaɪələt] 的簡寫，指「紫外線、紫外光」。

第 44 行的 in times of N. 表示「在……期間」。

第 45 行的名詞 city-state [ˈsɪti.stet] 指「都市國家、城市國家、城邦」。

第 51 行的 root cause 指「根本原因」。



▲ 以色列積極研發海水淡化技術，左圖為該國南部亞實基倫市的逆滲透海水淡化廠，右圖為西部哈代拉市的海水淡化廠。





# Starting the New Year Cleaner and Greener

## 環保清潔一把罩

— Bertus van Aswegen



歲末年初進行大掃除 (spring-cleaning) 時，要如何在五花八門的清潔產品與環保之間取得平衡呢？其實，只要利用手邊的物品就能兩全其美！快跟著本文一起來看看有哪些方便又環保的清潔方式吧！



TUE  
10

課文朗讀 正常 Track 17  
單字朗讀 Track 18

慢速 Track 59  
課程講解 Track 81

It's that time of year again—when closets are cleaned out, old furniture is replaced, and every last speck of dust is **hunted down** and **eliminated**.<sup>1</sup> And besides being fun and **renewing**,<sup>2</sup> spring-cleaning can also be a green activity that avoids the use of any harmful chemicals.

One of the most inexpensive and handy cleaners you can use is white **vinegar**.<sup>3</sup> A natural disinfectant, it can be used all over the home. And don't worry about the strong smell—it disappears after a while. A great way to clean and disinfect<sup>4</sup> kitchens is to heat half a cup of vinegar and spray it on

various kitchen surfaces. Wait at least one minute before wiping it off, and you'll have a shiny kitchen that feels brand-new.

Baking soda is another low-cost green cleaning tool, one that both cleans and gets rid of bad smells. Keep some in your fridge to prevent odors,<sup>5</sup> or clean your bathroom by wiping surfaces with vinegar and then



**sprinkling**<sup>4</sup> them with baking soda. This will **loosen**<sup>5</sup> up any gunk,<sup>6</sup> which you can then scrub away with a **sponge**<sup>6</sup> or even an old toothbrush.

WED  
11

課文朗讀 正常 Track 19  
單字朗讀 Track 20

慢速 Track 60  
課程講解 Track 82

For many people, the day starts with coffee. But think twice before you throw out those used coffee grounds because **it turns out** they can be quite helpful around the house. They can deodorize anything from your fridge to your shoe **cabinet**,<sup>7</sup> and they can also be used as fertilizer<sup>8</sup> in your garden.

**Along the same lines**, don't just trash any extra ketchup packets you get when you order some French fries. Owing to the **acid**<sup>8</sup> contained in ketchup, it can serve as a cleaning tool that works miracles on silver. Apply a few drops to your favorite silver jewelry and gently rub away old **stains**.<sup>9</sup> Just make sure that you rinse<sup>9</sup> and dry the jewelry before wearing it. Ketchup can also help remove burned food from pots and pans. Just cover the food with ketchup, leave it **overnight**,<sup>10</sup> and it'll be much easier to wipe away.

Having a clean home doesn't mean having to spend lots of money on pricey<sup>11</sup> cleaning products. Most of the time we can repurpose<sup>11</sup> various products around the house to **ensure**<sup>11</sup> both a cleaner home and a greener planet. ➔

翻譯請見第 65-66 頁

**補充說明** 第 2 行的 clean sth out 指「徹底清理 (房間、櫥櫃等)；把……打掃乾淨」，文中為被動用法；every last speck of dust [spek] 指「任何一點灰塵」，文中用誇飾法來形容「一塵不染」，speck 作名詞，表示「(粉末狀物質的) 微粒；斑點、小塊」。

第 23 行的 coffee grounds 指「咖啡渣」，grounds 作此義時恆用複數。

第 28 行的 trash 在此作動詞，指「丟棄」，與 throw out (第 23 行) 意思相同。

第 29 行的 packet [ˈpæki] 指「小包、小袋；小盒」。







人的記憶力很奇妙，有些資訊我們過一陣子就會忘記細節，但有些事我們一旦學會就幾乎不會忘記，騎腳踏車就是這樣的情況，而這種類型的記憶稱為「程序性記憶」(procedural memory)。想知道程序性記憶如何運作嗎？快跟本文來一探究竟吧！

FRI 13 課文朗讀 正常 Track 24 慢速 Track 62 單字朗讀 Track 25 課程講解 Track 84

It's said that using certain skills is "just like riding a bike." In other words, once they've been mastered, you never forget them. And it's true that while we often forget facts, we can typically hop on a bike and pedal<sup>1</sup> away without thinking about it.

But why are you generally still able to ride a bike even after having not ridden one for years? The answer is that certain skills, such as how to drive or play an instrument, are part of our procedural memory, a kind of long-term memory involved in performing different procedures.<sup>2</sup> And while these procedures may be difficult to learn, once acquired,<sup>3</sup> they're almost never forgotten.

This phenomenon<sup>4</sup> derives<sup>5</sup> from procedural memory being stored in a different region of the brain from declarative<sup>6</sup> memory, the type of memory responsible for recalling<sup>6</sup> information like names, dates, and events from your life. Studies indicate that the cells in the region storing procedural memory are more resistant<sup>7</sup> to loss and trauma;<sup>7</sup> therefore, procedural memories are rarely erased.

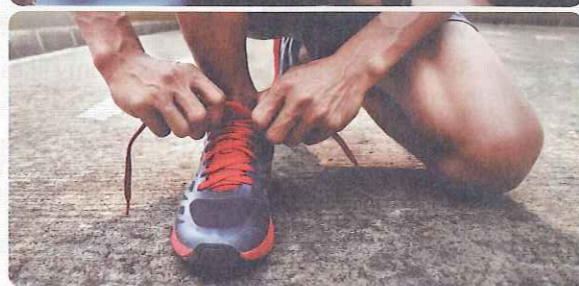
Now that you know why we don't forget how to ride a bicycle, can you name other skills that you're also unlikely to ever forget?



# Just like Riding a Bike

從騎腳踏車看記憶力的奧妙！

—Chris Redpath



補充說明 第 2 行的 in other words 表示「換句話說、換言之」。

第 26 行的 name 作動詞，表示「說出……的名稱」。

翻譯請見第 66-67 頁

## Discussion Starter

Do you think it's easier to form procedural memories or declarative memories? Why?

Based on . . . , I think that procedural memories are easier to form.

I think declarative memories are easier to form, since . . .

講解內容請收聽 Track 84 廣播講解

## Reading Comprehension

1. Which of the following statements is true?

- (A) Declarative and procedural memories are stored in the same brain region.
- (B) Procedural memories are frequently erased.
- (C) Procedures are easy to learn and to forget.
- (D) How to drive is part of our procedural memory.

答案請見第 67 頁

## Vocabulary

\* 表示大考出現過的字彙

- \* 1. **pedal** [ˈpedl] v. 騎(腳踏車); 踩(踏板)(可作及物或不及物用)  
Cassie enjoyed the sunshine as she pedaled her bike through the park.
- \* 2. **procedure** [prəˈsidʒə] n. 程序、步驟、手續  
[補] procedural [prəˈsidʒərəl] adj. 程序上的、程序性的(第 12 行)  
Changing a car's oil is a simple procedure that takes just a few steps.
- \* 3. **acquire** [əˈkwair] v. 學到、獲得; 養成  
Bart acquired his ability to speak Spanish while studying in Mexico.
- \* 4. **phenomenon** [fɪˈnɑməˌnɑn] n. 現象  
The northern lights are a strange and beautiful natural phenomenon.
- \* 5. **derive** [dɪˈraɪv] v. 起源於、來自(作不及物用, 之後接 from N.)  
The film's success derived largely from the popularity of the book it was based on.
- \* 6. **recall** [rɪˈkɔl] v. 記得; 回憶起  
Charlie knew he had met the man before, but he couldn't recall where.
- \* 7. **trauma** [ˈtrɔmə] n. 嚴重外傷、損傷;(心理)創傷  
Nancy suffered significant trauma, including several broken bones, after falling off her bike.

### 參考字彙

- ◆ declarative [dɪˈkleɪtərɪv] adj. 陳述的
- \* ◆ resistant [rɪˈzɪstənt] adj. 有抵抗力的、不受……損害的; 抵制的(之後常接 to N.)

## Language Spotlight

now (that) 既然、由於

同義 since、seeing that/as

now 在此作連接詞，用來引導表示原因的副詞子句，之後接子句，也常加上 that，寫作 now that + S. + V.。now (that) 引導的子句可置於句首，亦可置於主要子句之後。

- Sales have begun to increase now that the store has changed its location.  
由於那間店換了地點，銷售額就開始增加了。
- Now that you're 18, you should try to act more like an adult.  
既然你十八歲了，你應該表現得更像個大人。
- Seeing that all of the students were in the classroom early, the teacher started to give her lecture.  
既然所有學生都早就進教室，老師便開始上課了。

## 動手寫寫看

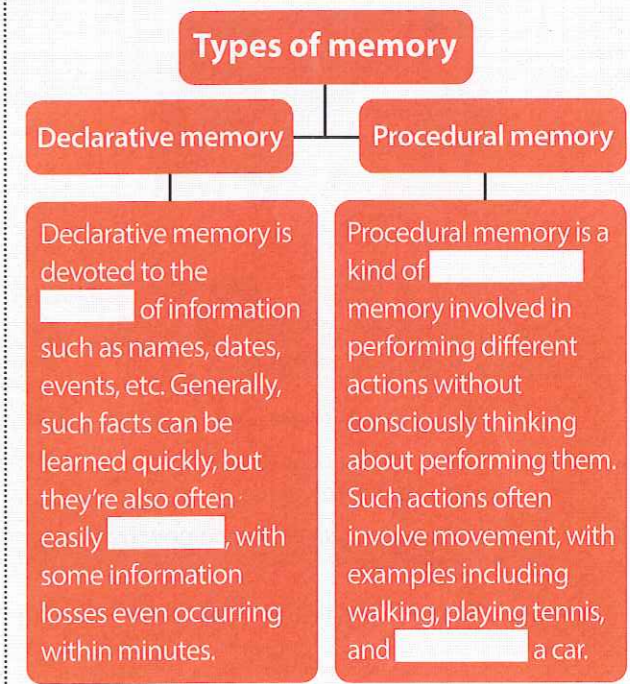
答案請見第 67 頁

◆ 請依本文所學，譯出正確通順的英文。

1. 既然這項專案完成了，我們可以去慶祝了。

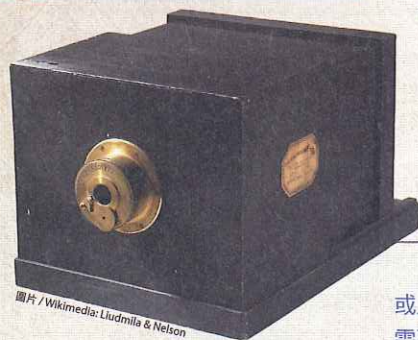


Fill in the blanks in the diagram below by using words from the article. Note that you might need to make changes to a word to fit the grammatical needs of the sentence.



答案請見第 67 頁





# A Snapshot of the Camera's History

## 淺談相機的歷史

—Oliver Flaherty

相機功能如今已是智慧型手機的標準配備，人們拍照來記錄生活點滴或上傳社群媒體，過程也許不過短短幾秒鐘，但你知道世界上第一張照片需要八小時曝光才能成像嗎？快跟著本文一起來了解相機的發展史吧！



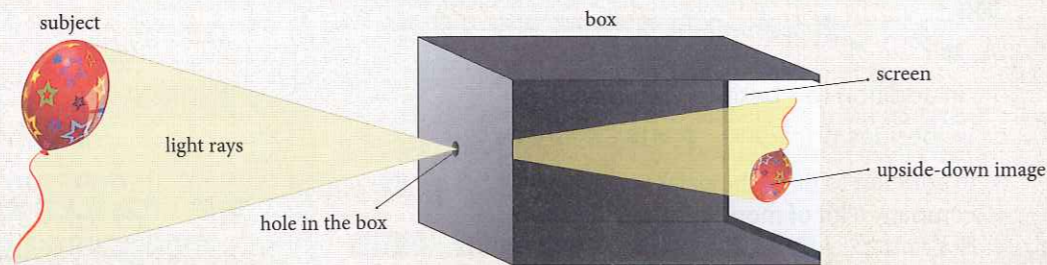
TUE 17  
 課文朗讀 正常 Track 28  
 單字朗讀 Track 29  
 慢速 Track 64  
 課程講解 Track 86

Chances are you've taken a photograph of something in the past few days. Perhaps you snapped a photo of a delicious meal, a loved one, a pet, or something to help you remember a special event. Indeed, smartphones have made cameras so portable<sup>1</sup> and commonplace<sup>2</sup> that we now take for granted the ability to quickly and easily document<sup>2</sup> our lives and experiences. But it's worth taking a moment to look back on the history of the camera so that we can better appreciate just how amazing this invention<sup>3</sup> is.

The history of the camera actually predates the introduction of photography<sup>4</sup>

by hundreds of years. Some even trace it back to the fourth century BC, when the Chinese philosopher<sup>5</sup> Mozi documented the phenomenon known as the camera obscura effect. This effect occurs when light passes through a small point in a screen, forming an inverted<sup>6</sup> image on the other side. In around AD 1000, an Arab scholar named Ibn al-Haytham wrote in detail about the effect, and by 1550, people were building camera obscura devices to use as drawing aids. Because there was no way to preserve<sup>6</sup> the resulting images, people traced them onto paper.

墨子在《墨經》中提到：「景，光之人，照若射。下者之人也高，高者之人也下。足蔽下光，故成景於上；首蔽上光，故成景於下。在遠近有端，與於光，故景庫內也。」此被視為對「針孔成像」現象最早的描述。

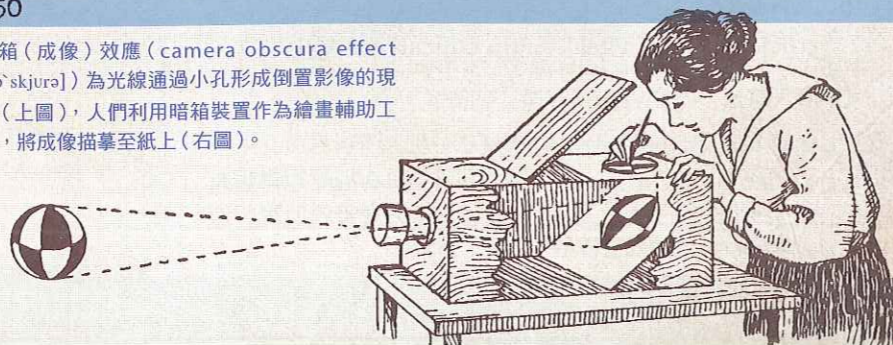


400 BC AD 1000 1550



海什木 (Ibn al-Haytham)

暗箱(成像)效應(camera obscura effect [əbˈskjʊərə])為光線通過小孔形成倒置影像的現象(上圖)，人們利用暗箱裝置作為繪畫輔助工具，將成像描摹至紙上(右圖)。



WED 18  
 課文朗讀 正常 Track 30  
 單字朗讀 Track 31  
 慢速 Track 65  
 課程講解 Track 87

Camera obscura devices are often considered the earliest cameras, but they couldn't fix an image and thus truly create a photograph. It had been demonstrated<sup>7</sup>, however, that certain substances darken upon being exposed<sup>8</sup> to light. Among those experimenting with these chemicals was a Frenchman named Joseph Nicéphore Niépce, who used a wooden box and a chemical-covered metal plate to create the first permanent<sup>9</sup> photograph in 1825. In those early days, the photograph was actually the plate itself, which had an image burned onto it.

The next breakthrough<sup>10</sup> came in the 1830s, when the English scientist William Fox Talbot developed a process for creating paper photographs. First, a negative image was created in a camera. Light was then shone through the negative to create a positive image on paper. This technique allowed many prints to be created from one negative and paved the way for photographic film and the portable 35 mm camera.

約瑟夫·尼塞福爾·涅普斯(Joseph Nicéphore Niépce)(右圖一)利用木箱和蓋滿化學物質的金屬板創造了第一張永久照片(右圖二)。



圖片/Wikipedia: Niépce, Niépce



圖片/Wikipedia: Castelbianco

1825 1830s

威廉·福克斯·塔爾伯特(William Fox Talbot)(右圖一)於一八三〇年代發明卡羅法(Calotype)，從此開啟由負轉正的攝影技術。他利用此法所拍攝的住家窗戶照片也成為世界上第一張負片(右圖二)。



圖片/Wikipedia: William Fox Talbot



圖片/Wikipedia: William Fox Talbot

► film 底片；(攝影)膠捲軟片



These days, most cameras use digital<sup>11</sup> sensors<sup>12</sup> to capture light and store it as data, but they remain indebted<sup>13</sup> to devices that utilized<sup>13</sup> light-sensitive chemicals and the camera obscura effect. Without these inventions, the camera as we know it today might not exist. ➔

翻譯請見第 68 頁

補充說明 標題的 snapshot [ˈsnæp.ʃət] 在此為雙關語，一指「照片、快照」，另一個意思則為「簡介、簡短描述」。而第 3 行的 snap 在此作動詞，指「給……照相」，亦可作名詞，指「快照」，與 snapshot 相同。

第 1 行的 chances are (that) + S. + V. 表示「很有可能是……」，chances 在此恆用複數，表示「可能性」，that 可省略。

第 10 行的 look back at/on N. 表示「回顧、回想……」。

第 16 行的 trace sth back to N. 表示「可追溯至……」；而第 29 行的 trace 則指「描摹、描繪；勾畫……的輪廓、勾勒」。

第 17 行的 BC 指「西元前」，為 Before Christ 的首字母縮寫，置於年代之後；第 23 行的 AD 則指「西元後」，是拉丁文 Anno Domini (基督紀年) 首字母縮寫，置於年代之前。

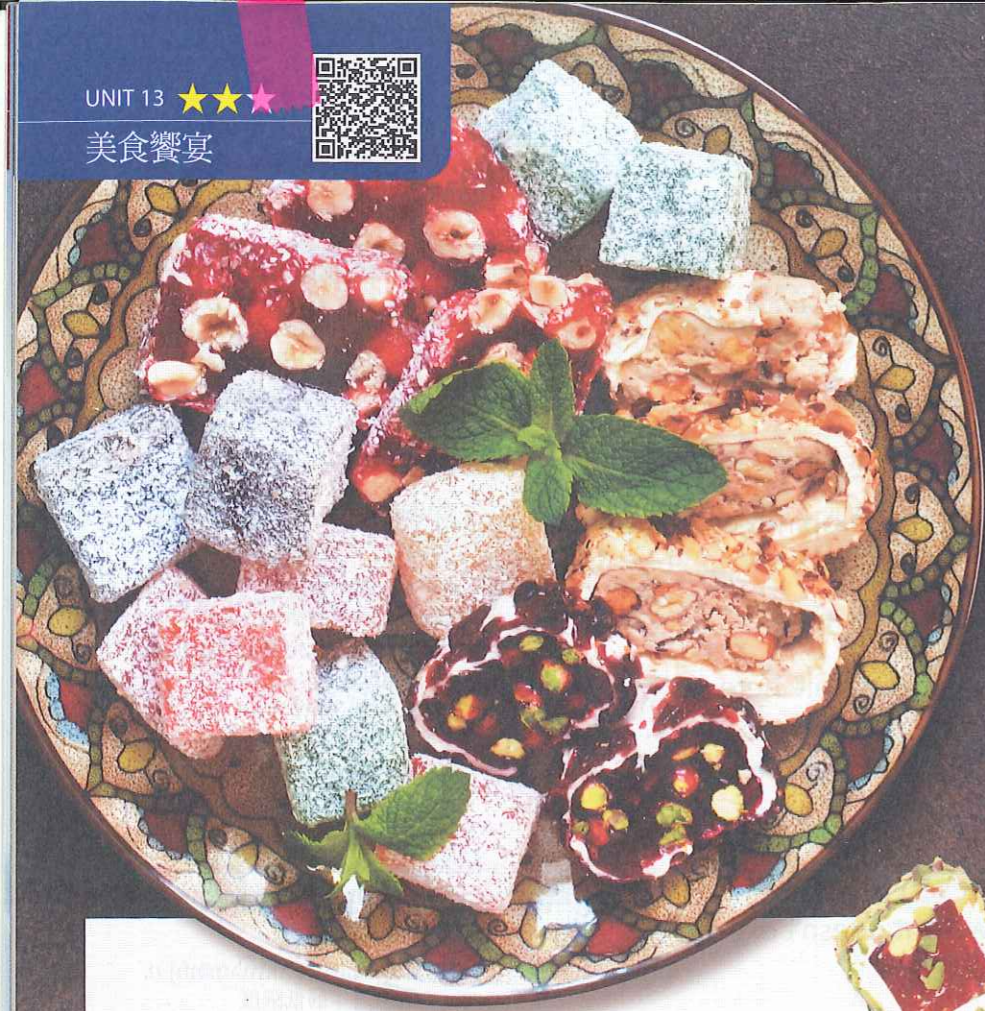
第 32 行的 fix 在此指「定(影)、定(色)」。

第 51 行的 print 在此作名詞，指「(用底片沖洗出來的)照片」。

第 52 行的 pave the way for N. 表示「為……鋪好路、使……成為可能」。







# Turkish Treats: A Tour of Turkish Desserts

## 土耳其甜點之旅

—Ben Bousada

你或許看過販賣土耳其冰淇淋的老闆以各種戲法跟顧客進行趣味的互動，不過土耳其著名的甜品可不只有冰淇淋，有些甜點還有悠久且充滿趣味的歷史，而有的使用的食材保證讓你嘖嘖稱奇。現在就跟著本文一起踏上探索土耳其甜點的美味之旅吧！



lokum  
[lɔˈkum] 土耳其軟糖

FRI 27  
課文朗讀 正常 Track 45  
單字朗讀 Track 46  
慢速 Track 72  
課程講解 Track 94

From its history to its culture, there are many reasons to love Turkey. But for those of us with a sweet tooth, there's another, more appealing reason: Turkey boasts an abundance of delicious desserts that are well worth getting acquainted with.

One of Turkey's most famous desserts is actually named after it. Turkish delight,<sup>2</sup> also known as lokum, is a chewy, colorful, and soft treat. It's also full of flavor, taking its taste from dried fruits, nuts, and of course, plenty of sugar. Not only is this dessert a favorite around the globe, it also has an interesting history. Legend has it that Turkish delight was invented by some of Turkey's best chefs as a means to secure<sup>3</sup> peace between a powerful sultan's many wives. And remarkably,<sup>4</sup> it worked!



baklava  
[ˈbɑklə.vɑ] 果仁蜜餅；  
蜜糖果仁千層酥

Of course, no discussion of Turkey's desserts would be complete without mentioning baklava. Typically made with dozens of layers of phyllo pastry topped with nuts, baklava



phyllo pastry  
[ˈfɪlə] [ˈpestri]  
油酥千層餅皮；  
薄脆千層酥皮

comes in a variety of shapes and styles. And although you can find baklava in other countries, no country takes their baklava as seriously as Turkey. After all, most historians assert<sup>5</sup> that baklava was, in fact, invented there.

MON 30  
課文朗讀 正常 Track 47  
單字朗讀 Track 48  
慢速 Track 73  
課程講解 Track 95

Turkey may be home to some famed<sup>6</sup> desserts, but it also has some surprising and unique ones too. For instance, kesme dondurma is an ice cream so thick you need to eat it with a knife and fork. Made from goat's milk and ground orchid tubers,<sup>7</sup> this Turkish specialty<sup>7</sup> is usually served shaped like a brick. Although the orchid powder helps thicken the ice cream, it's actually a special way of preparing the milk that makes the ice cream so solid.

Perhaps the most peculiar<sup>8</sup> dessert you'll try in Turkey is tavukgogsu. While it has a texture<sup>9</sup> and taste similar to rice pudding, this dessert's main ingredient<sup>10</sup> is actually chicken. The meat is cooked down in milk until they mix together into



kesme dondurma  
[kesˈmɛ] [ˈdondurma]  
切片冰淇淋



tavukgogsu  
[tɑ.vuˈgɔsu] 雞肉布丁

a pudding. Flavored with cinnamon and vanilla,<sup>11</sup> it's not only one of Turkey's signature desserts, it's also quite tasty!

From the famous to the strange, Turkey's desserts are as delicious as they are fascinating. But of course, if you truly want to learn about these sweet dishes, there's one more thing you need to do. Take a trip to Turkey and go try them all!

翻譯請見第 71 頁

補充說明 第 2 行的 a sweet tooth 指「嗜甜、喜愛甜食」。

第 5 行的 name sb/sth after... 指「以……來替某人事物命名」，文中為被動用法。

第 16 行的 top 作動詞，表示「(作為裝飾)放在……的上面；覆蓋」。

第 17 行的 come in 表示「有(顏色、尺寸等)選擇；以……形式販售」。

第 28 行的 ground 在此作形容詞，表示「磨碎的；磨成粉末的」。

第 30 行的 shaped like a brick 表示「像磚頭形狀的」，shaped 在此作形容詞，表示「具有……形狀的」，另外 serve sth + adj. 用來指端上時的狀態，文中為被動用法。

第 38 行的 cook down 指「熬煮」，意思與 boil down 相近，文中為被動用法。

第 40 行的 flavor 在此作動詞，表示「以……調味」。

第 43 行的 the famous 和 the strange 皆為「the + 形容詞」的用法，通常視為單數名詞。