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Getting from place to place is simple thanks to the roads we build.

因為有我們修建的道路,讓往來各處通暢容易。

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### 誰說便捷不環保?

# 綠色道路發酵中!

英文 / Leila Luo 圖 / 123RF



People have been using roads to get from place to place faster for a long time. The first roads were simply dirt roads packed to be flat and smooth. These dirt roads then became stone roads and eventually the black, paved roads we have today. Unfortunately, our convenient roads have a big effect on the environment.

人們藉由「道路」迅速往來各地已行之有年。從最初只是將泥土壓成平坦、單純 的土路,演變為石頭路,到今日使用的黑色柏油路。雖然道路給我們便捷,不幸 的是對環境也影響甚鉅。

Dirt roads seem harmless but the dust that gets pushed into the air makes the air dirty. Gravel or stone roads keep the air cleaner but they can stop water from flowing. Modern roads paved with asphalt let water pass and are dust free but are made with oil. These problems are why engineers continue to look for road solutions that are better for the planet.

看似對環境無害的泥土路, 揚起的砂塵卻會使空氣混濁; 碎石、礫石路雖可保持空氣清淨, 但會阻斷地表逕流; 瀝青鋪造的現代道路不會塵土飛揚, 也不會阻礙水流, 卻有使用石油原料的缺點。諸如此類的問題讓工程師們想方設法, 殷殷尋求友善地球的道路。



road (n.) 路

pack (v.) 壓實;包裝

flat (a.) 平坦的

smooth (a.) 光滑的

convenient (a.) 便利的



## 廢塑問題有新解

# 環保道路來幫忙

英文 / Andrew Edmunds 圖 / 123RF



Twelve countries, including Vietnam, the Philippines and India have found a successful way to reduce plastic garbage—build roads with it instead. Not only does this keep plastic out of landfills and oceans, but the new roads are also stronger and last longer.

包括越南、菲律賓和印度在內的 12 國,找到有效減少塑膠垃圾的方法了,那就是以塑膠垃圾修築道路。如此,不僅減少塑膠進入垃圾掩埋場或流入海洋,這種新式工法也讓道路更加堅固,使用壽命也較長。



### 塑膠纖維生悶氣

## 拉麵手法繞指柔

英文 / Andrew Edmunds 圖 / 瀚昇

Turning plastic into thread for cloth is a clever way to reuse plastic, but the material doesn't breathe very well. Recently an international team of scientists at MIT fixed that problem. They stretched the plastic to make fibers just like pulling dough to make noodles. Their new cloth is light and breathable.

化塑膠為服飾的紗線雖是賦予塑膠新生命的妙計,然而這類材料的透氣性通常不佳。近日,麻省理工學院(MIT)的國際科學家團隊將塑膠如將麵團拉製麵條般,延展,製成既輕便又透氣的新式布料纖維,成功地解決此一問題。



# 誰家道路既涼爽還呼吸?

### JW 海綿路抗洪預旱代價高

英文 / Leila Luo 圖 / 123RF

In Xizhi, the search for better roads has led to a very interesting answer—the sponge road. Made by JW Eco-Technology, this high-tech pavement is better at preventing floods because the water can flow through into the soil below. It can also help prevent the opposite problem of droughts because tanks can be put underneath to collect water.

人們殷切地尋找對環境友善的道路,在汐止得到極為有趣的解答。由 JW 生態工法打造的高科技人行道「海綿道路」,能讓雨水滲入道路下方的泥土,助益其防洪能力;於路面下裝設的集水槽,也讓道路在乾旱時期能派上用場。



This new pavement is also quite good at staying cool. In the heat of summer, the soft, spongy road can be 10-20 degrees Celsius cooler than normal asphalt roads. This makes it a perfect solution for walking paths in parks and neighborhoods. The technology is still expensive so it might be a while before you see these breathable roads in your neighborhood.

新式人行道在維持環境涼爽上也相當亮眼。炎炎夏日,如海綿般柔軟的道路,可比柏油路溫度約低攝氏 10 到 20 度,成為公園和社區人行道的理想選擇。然而 JW 工法要價不斐,因此想在家附近見到「會呼吸的海綿道路」,可能尚有一段路要走。



pavement (n.) 人行道

flood (n.) 洪水

drought (n.) 旱災

heat (n.) 高溫、熱

path (n.) 路徑



# 印度愚公穿山鑿路只為醫

# 物換星移二十餘載從不悔

英文 / Leila Luo 圖 / 123RF

Sometimes when a person suffers a great loss, like losing a loved one, the person turns their pain into something that helps others. Dashrath Manjhi did that after his wife fell on a narrow path on the side of a rocky hill. Because the nearest town with a doctor was 70 kilometers away, Manjhi's wife couldn't get medical care fast enough and died.

經歷如失去摯愛的重大打擊後,人們有時會將傷痛化為助人的正向力量。達什拉斯·曼吉的妻子在狹窄崎嶇的山徑上摔傷,卻因長達 70 公里的求醫路程,因此延誤救護而身亡。

Manjhi decided to cut a wider, safer road through the rocks in order to let his fellow villagers have easier access to medical care. For 22 years, he carved a road using simple hand tools all by himself. In 1982, Manjhi finished the road. People from 60 different villages used his road, which reduced their journeys from 55km down to 15km.



於是曼吉決定為村民們打造一條貫穿石壁,更寬廣、更安全,直通城鎮的道路,便於獲得及時的醫療照護。曼吉費時 22 年,獨自一人以隨手可得的手動工具鑿路,終於在 1982 年開通道路。遙遙 55 公里的就醫路途,銳減為 15





loss (n.) 喪失

narrow (a.) 窄的

rocky (a.) 崎嶇的、多岩石的

cut (v.) 抄近路

fellow (n.) 人



1.	Which	statement	is	NOT	true
ab	out road	ds?			

- a. They can be made from different materials.
- b. They are completely harmless.
- c. They are easy to use.
- d. They make traveling more convenient.
- 2. Where are some countries starting to put their plastic waste?
- a. in the countryside
- b. in roads
- c. on the ocean
- d. under landfills
- 3. What is wrong with older cloth made from plastic?
- a. It makes too much plastic waste.
- b. It doesn't let air move through it.
- c. It stretches out of shape.
- d. It looks like noodles.

- 4. How are the spongy roads helpful?
- a. They prevent the summers from being so hot.
- b. They can keep floods from happening.
- c. They give engineers jobs.
- d. They reduce plastic garbage.
- 5. Who helped Dashrath Manjhi build the road?
- a. his wife
- b. a doctor
- c. 22 people
- d. no one
- 6. Which word means a long time with little or no rain?
- a. drop
- b. drought
- c. drown
- d. flood

#### Cloze Test A

Tina bought some new athletic clothing to wear when \_\_\_ exercises. They made from different materials, like bamboo plastic.

#### Cloze Test B

Tom used to jog on the road but \_\_\_ hard surface made \_\_\_ knees hurt. Now he jogs on a softer track and \_\_\_ more comfortable.



#### 1.b 2.b 3.b 4.b 5.d 6.b

- 1. 道路對環境影響很大,即便土路也有揚沙、空汙等問題,因此答案為選項 (b)。
- 2. 許多國家「開始」將回收塑膠用於鋪路。將塑膠垃圾傾倒掩埋場,或使 之流落海洋是多數國家既有的垃圾處理方式,而本題問的是「新方法」, 因此正確答案為 (b)。
- 3. 第 3 版第 2 則報導提到,通常以塑膠製成的布料透氣度不佳,因此這也是新式塑膠纖維必須解決的問題,所以正確答案為 (b)。
- 4. 海綿道路防洪能力更優秀。正確答案為 (b)。
- 5. 第 5 版報導中的新聞人物,以一己之力,費時 22 年鑿開道路。聽起來雖不可思議,但真的 (d) 沒有他人幫助。
- 6. drought(n. 乾旱)與 flood(n. 洪水)為反義詞,意為長時間不降雨造成缺水。因此正確答案為 (b)。

#### Cloze Test A

#### 1.she 2.are 3.and

為了運動,蒂娜買了幾件新的運動服。它們分別是由竹子、塑膠等各種不同素材製成的。

#### Cloze Test B

#### 1.the 2.his 3.is

過去湯姆常在車道上慢跑,但硬梆梆的地面讓他膝蓋發疼;現在,他選擇在跑道上慢跑,更為柔軟路面,跑起來也就更舒適了。

# 塑化麵>>>



就快弄好了……



搞定!等我拿工具來, 絲線就大功告成了!



喔!是麵!我要開動了。



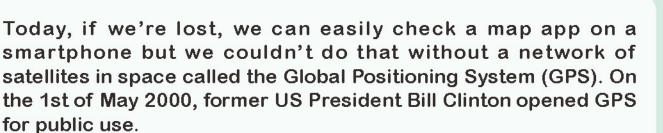
呃…老兄,那不是拉麵。

## The Rest is History

# 衛星指路不迷航

# GPS 精準定位零誤差

英文 / Andrew Edmunds 圖 / 123RF



若沒有太空中衛星網絡的「全球定位系統 (GPS)」,當我們迷路時,就無法輕鬆點選智慧型手機上的地圖軟體,解決危機。2000 年 5 月 1 日,美國第 42 任總統比爾 · 柯林頓開放 GPS 供民間使用。

grab (v.) 抓取

lost (a.) 迷路的、遺失的