**中国天眼**

**FAST**

**探索宇宙奥秘和人类起源 一直以来都是人类追求的梦想**

**Exploring the mysteries of the universe and the origin of mankind has long been a dream pursued by us.**

**如今**

**“中国天眼”——500米口径球面射电望远镜（FAST）建成并投入使用**

**让人类离这个梦想更进了一步**

**Now, the Five-hundred-meter Aperture Spherical radio Telescope, also known as China’s “Sky Eye” has been completed and put into operation, which takes us mankind one step further to this dream.**

**FAST坐落在中国贵州平塘县的大窝凼**

**FAST is located in the Pingtang County in Southwest China’s Guizhou province.**

**这里远离城市 是全世界进行天文观测的最佳场所之一**

**Far away from the hustle and bustle of cities, this is one of the best places in the world for astronomical observation.**

**独特的喀斯特地貌让这里形成了一个个天然洼坑**

**更适合建造这口大“锅”形状的望远镜**

**The naturally deep and round karst depression is perfect for building this large “wok” shaped telescope.**

**作为人类历史上最大的射电望远镜FAST的面积相当于30个标准足球场**

**It’s the world’s largest filled-aperture radio telescope, with a receiving area equivalent to 30 football fields.**

**站在FAST底部 才能感受到它的巨大**

**Standing at the bottom of FAST, I do feel its magnificent immensity.**

**它由4450块反射面单元组成**

**而总数达上百万个的单块子单元**

**表面加工精度都控制在一毫米以内**

**直接关系到FAST的探测精度和综合性能**

**Its active reflector consists of 4,450 reflective surface units, and millions of single subunits. The error of the surface accuracy is less than one millimeter, which directly contributes to the high detection accuracy and comprehensive performance of FAST.**

**这里是FAST的核心——总控室**

**每周七天 每天24小时 FAST不间断运行**

**工程师们也处于24小时的轮班状态**

**Here is the core of FAST— the general control room, which is run 24/7 by a group of engineers who work in shifts.**

**这群运行“中国天眼”的年轻人平均只有34岁**

**The average age of these people who operate the “Sky Eye” is only 34.**

**目前 FAST主要用来接收遥远天体的无线电波**

**它已成功发现371颗脉冲**

**是引力波探测 航天器导航等前沿研究的理想工具**

**Currently, FAST is mainly used to receive radio waves from distant celestial bodies; and it has successfully discovered 371 pulsars. As an ideal tool for cutting-edge research such as gravitational wave detection and spacecraft navigation.**

**2021年 FAST已向全球科学界开放**

**各国的天文学者都可以提出观测申请**

**FAST has opened to the global scientific community since 2021, accepting observation applications from astronomers around the world.**

**中国将与世界各国一同进步**

**促进人类文明繁荣**

**Together with other countries in the world, China will strive for the development of human civilization.**

**寂静的夜晚 不妨抬起头仰望星空**

**想象着和“中国天眼”一起**

**穿越亿万光年 探寻宇宙奥秘**

**On a tranquil night, we may look up at the starry sky, imagining that we are traveling through space and time with China’s “Sky Eye”**

**长信宫灯**

**Changxin Palace Lamp**

**1968年 考古队在中国河北省满城县的郊外**

**发现了西汉靖王刘胜及其妻子的墓室**

**这里出土了无数珍贵的文物**

**其中就有一盏被称为“中华第一灯”的“长信宫灯”**

**In 1968, at Mancheng County in north China’s Hebei Province, many precious relics were unearthed in the tombs of Prince Liu Sheng and his wife of the Western Han Dynasty (220BC-8AD), including the Changxin Palace Lamp which is hailed as “the first lamp of China”.**

**长信宫灯由青铜制成 通体鎏金**

**整座灯是一名宫女跪坐持灯的造型**

**The gold-plated bronze lamp bears the shape of a maid on her knees holding a lamp.**

**她左手托着灯盘**

**右臂上举 宽大的袖口下垂形成灯罩**

**The lamp plate is on her left hand; whereas her right hand, which is covered by a loose sleeve, carries the lampshade.**

**拉动灯盘的手柄 就可以转动灯盘上的两枚遮光片**

**从而调节灯光的亮度和角度**

**The brightness of the lamp and the direction of the light could be adjusted with this handle which controls two moveable shades.**

**尤其令人惊叹的是 宫女的身体是中空的**

**由于虹吸原理 灯烛燃烧后形成的灰烟 会流入右臂的烟道**

**并通过底层水盘过滤**

**Intriguingly, the lamp makes use of the siphon principle, with the exhaust fumes flowing through the maid’s right arm into her hollow body where water is stored.**

**这样的设计能够有效减少室内的烟尘 避免污染空气**

**Such design can dissolve soot and prevent the lamp from polluting the indoor air.**

**此外 整盏宫灯由六个组件拼装而成**

**能够轻松拆卸 也便于清洁**

**Apart from that, the 6 component parts of the lamp can all be disassembled, and are easy to clean.**

**看见这盏灯**

**仿佛能看到被它照亮的那个时代**

**设计精美的长信宫灯 不仅体现了西汉匠人的创造才能**

**也彰显了两千年前的科学技术水平**

**The delicate Changxin Palace Lamp provided a glimpse into China’s glorious past, testifying to the wisdom of ancient Chinese artisans as well as China’s achievements in science and technology 2,000 years ago.**

**曾有外国领导人来华访问时见到长信宫灯**

**并感慨道 两千多年前中国人就懂得了环保 真了不起**

**Former US Secretary of State Henry Alfred Kissinger was so amazed by the lamp, saying that Chinese people were so extraordinary that they had environmental protection concepts more than 2,000 years ago.**

**2022年 北京冬奥会的火种灯也借鉴了长信宫灯的外形和创意**

**The 2022 Beijing Winter Olympic flame lantern was inspired by the Changxin Palace Lamp.**

**火种灯的玻璃部分采用双层结构**

**并设计了隐藏式的通风管道**

**不会产生黑烟 积碳的问题**

**将传承千年的环保理念与奥林匹克精神完美融合**

**It uses transparent double glass and a hidden diversion channel to reduce the fume and carbon deposition, which is a perfect marriage of green initiative and the Olympic Spirit.**

**欢迎你来河北博物馆**

**看看这件镇馆之宝 感受千年前的环保设计**

**Welcome to Hebei Museum, where you can have a look at this eco-friendly lamp from 2000 years ago.**

**移动支付**

**Mobile Payment**

**走在中国东部浙江省省会城市杭州的街上**

**你会发现不论是大型商超还是时装店铺**

**柜台上都会摆放着收款码**

**Walking in Hangzhou, capital of East China’s Zhejiang province, you will find a QR code on the checkout counter of every shop, be in a supermarket or a fashion store.**

**你仅需拿出手机对准它轻轻一扫**

**便能完成一次愉快的购物**

**Just scan the code with your mobile phone, and you can complete your purchase easily.**

**不用现金和钱包**

**口袋里仅需一部手机**

**你便可以享受中国的智能化现代生活**

**No need for cash or a wallet. You can live a smart life in China with a mobile phone in your pocket.**

**比如**

**坐地铁可以使用地铁码就能完成自动扣款**

**For instance, you can take the subway by simply scanning the code with your phone.**

**去餐厅用餐时**

**无需和服务员交流**

**坐在餐桌上就可以扫码点餐**

**When dining at a restaurant, you can order food without a waiter, just scan the code on the table.**

**去医院看病**

**一部手机就能完成全部缴费**

**When in hospital, your smartphone helps you to pay the bills as well.**

**中国已成为全球最大的移动支付交易市场**

**移动支付场景覆盖着生活中的方方面面**

**China has become the world’s largest mobile payment market, with mobile payment service provided in all scenarios of daily life.**

**中国有8.54亿用户在使用移动支付**

**智能手机的高度普及**

**和发达的移动通信网络造就了这一新的支付方式**

**In China, 854 million people use mobile payments, a result of the high smartphone adoption rate and the highly developed telecommunications networks.**

**中国的4G基站数量占全球一半以上**

**5G基站数量则占到全球的70%**

**移动网络信号几乎覆盖全国**

**More than half of the world’s 4G base stations and 70 percent of the world’s 5G base stations are in China. The mobile network coverage is almost 100%.**

**保证了移动支付服务的便利性和稳定性**

**也让支付方式和场景更加多元**

**All these have made the mobile payment service more convenient and stable, allowing diversified payment methods and scenarios.**

**中国的移动支付不仅改变了城市的交易样态**

**也影响着千千万万的乡村**

**Mobile payment has not only been adopted in Chinese cities, but also in rural areas.**

**在中国东部山东省的县级市寿光**

**菜农们通过移动支付便能轻松完成卖菜钱款的结算**

**再也不用频繁跑银行**

**In Shouguang, a county-level city in East China’s Shandong Province, farmers use their smartphones to accept and settle payments, so no need to frequently go to the bank.**

**在中国西南部的西藏自治区拉萨**

**甚至是更偏远的雪域高原**

**当地的村民们也能借助移动支付实现扫码坐公交**

**感受现代化技术所带来的便利**

**In Lhasa in Southwest China’s Tibet autonomous region, or a more remote place, villagers can take the bus by simply scanning the code with their smartphones, enjoying the convenience brought by modern technology.**

**随着社会生产力的发展**

**人类支付和交易的方式也在不断革新**

**With the development of our society, the payment and transaction methods are constantly being innovated.**

**在你心目中未来最便捷的支付方式又会是什么样呢**

**What do you think will be the most convenient payment method in the future?**