A Visionary Shaping Cities of Tomorrow

Dialogue

By Staff Reporters


Professor Michael Batty. (COURTESY PHOTO)

Born in the UK in 1945, Professor Michael Batty is a leading figure in urban planning, geography, and spatial data science. As chair of the Centre for Advanced Spatial Analysis at University College London (UCL)'s Bartlett Faculty of the Built Environment, he has played a pivotal role in redefining how cities are studied, modeled, and planned through innovative digital tools and theoretical frameworks.

In recognition of his pioneering work and long-standing collaboration with Chinese institutions, he was elected as a foreign member of the Chinese Academy of Sciences (CAS).

Speaking on this honor in 2022, he said "I am honored to have been elected a fellow of CAS. I first visited China in 1986 and have been there many times since then as a visiting professor with exceptional universities. The fact that UCL now has 15,000 Chinese students out of 50,000 is testament to the strong links we have built. I look forward to strengthening our relationship with China."

A scientific approach to urban complexity

Batty has spent over five decades developing dynamic spatial models and visualizations that have laid the foundation for modern smart city modeling and digital twin technologies.

His theoretical contributions, particularly in complexity science and fractal modeling, offer a robust framework for understanding urban systems as evolving, adaptive entities.

He is the author of *The New Science of Cities (2013) and Inventing Future Cities (2018)*, both of which have been translated into Chinese and widely read by scholars and practitioners across China.

He emphasizes that cities are complex systems, and urban planning must be approached with care to avoid unintended consequences. He warns against what he calls "wicked problems" — complex, interdependent urban challenges that often worsen when addressed simplistically.

"Good urban planning should not create more problems than it solves," he explained. "For example, building more roads to reduce traffic congestion often leads to more car ownership and, paradoxically, worse traffic."

On China's urban development

Batty has long admired China's rapid urbanization and technological advancement. He notes that many Chinese cities have become global models in applying new technologies in urban development.

He is particularly impressed by the emergence of urban clusters such as the Guangdong-Hong Kong-Macao Greater Bay Area, a region with over 80 million people, where cities like Hong Kong, Shenzhen, and Guangzhou demonstrate effective regional integration and synergistic development.

He also praises China's achievements in infrastructure, especially its rapid and large-scale development of metro systems, a feat that many Western countries struggle to match.

AI's role in planning

As cities become increasingly data-rich, AI is playing a growing role in urban planning and management. Batty acknowledges AI's transformative potential in processing vast amounts of data and enabling more accurate modeling.

However, he stresses that AI will never fully replace urban planners. "AI can generate solutions and identify patterns, but it lacks consciousness and the ability to appreciate the human and cultural dimensions of urban life," he said. "AI cannot judge the value or beauty of what it creates. That requires human insight."

Looking ahead, Batty predicts that cities will become increasingly intelligent, driven by advances in AI, mobile communications, and real-time data analytics. These technologies will reshape how people interact with urban environments, from smarter transportation systems to responsive public services.

At the same time, he emphasizes that while cities are constantly evolving, they also retain core identities and structures.

"Cities like Beijing have changed dramatically over the past century, yet their essence remains recognizable," he observed. One of the greatest challenges for urban planners is to understand the balance between transformation and continuity.

Batty's work offers a compelling vision of the future of cities, one that integrates scientific rigor with humanistic values. His advocacy for complexity-based planning, digital modeling, and sustainable development provides a roadmap for addressing the multifaceted challenges of urbanization.

This is an edited version of the original Chinese article by ZHANG Xinxin from Cover News based in Chengdu, Sichuan province.

Chikungunya Fever: What You Need to Know

Science Outreach

By Staff Reporters

On July 22, the World Health Organization (WHO) issued an alert on the risk of a chikungunya epidemic — a mosquito-borne fever-inducing virus — urging countries to take adequate preparations to prevent large-scale outbreaks.

According to Diana Alvarez, head of WHO's arbovirus team, 119 countries and regions have reported transmission of the chikungunya virus, putting approximately 5.5 million people at risk, posing significant pressure on health systems worldwide.

In Foshan, a city in Guangdong province, south China, the first imported case was detected on July 8. By July 24, there were over 4,000 confirmed cases. Beijing has also reported sporadic imported cases, with risks persisting due to increasing international exchanges.

At a press conference held by the National Health Commission on July 23, Duan Leilei, a researcher from the Chinese Center for Disease Control and Prevention (China CDC), clarified that although local transmissions had occurred in some southern cities, there is no evidence of human-to-human transmission.

He Jianfeng, chief scientist in Infectious Disease Control at the Guangdong provincial CDC, explained that the primary vector responsible for spreading the chikungunya virus in Guangdong is the Aedes albopictus mosquito.

Chikungunya fever symptoms include fever, rash, and joint pain. Patients admitted to the Lecong Hospital in Shunde district, one of Foshan's designated treatment centers, exhibited these typical symptoms. Most patients experienced moderate fevers, rashes mainly appearing on their chest, limbs, face, and palms, and intense joint pains primarily affecting the fingers, wrists, and ankles.

Although severe complications are rare, newborns, the elderly, and those with chronic diseases like hypertension, diabetes, or heart conditions face higher risks.

Preventing chikungunya fever hinges on eliminating mosquitoes through various means, such as using household insecticides. Installing window screens, using bed nets or electric mosquito repellents or coils and applying insect repellents when outdoors will also help prevent getting bitten by the insects. Wearing light-colored long-sleeve clothing is another precaution, as mosquitoes are attracted by bright colors.

People are also advised to regularly empty water containers inside and outside their homes, including planters and roof rainwater gutters, to disrupt mosquito breeding grounds.

"If you develop high fever, severe joint pain, or a rash, especially if you've been bitten by mosquitoes or traveled to endemic areas, seek medical attention immediately," Duan said, adding that with vigilance and proactive measures, the spread of chikungunya fever can be combated, safeguarding public health.

Technology Powers Smart Consumption

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Intelligent eldercare: enhancing quality of life

With over 300 million people aged 60 and above, China is rapidly becoming one of the world's oldest societies. The "silver economy" is now a major frontier for innovation.

In Changchun city in northeast China, robotic chefs in smart cafeterias prepare healthy meals for seniors.

In Zhejiang's mountainous regions in east China, drones deliver hot meals to remote-living elderly. In Beijing, companion robots like "Xiaoli" help retirees manage their daily routines — reading news, reminding them to take their medicines, and even offering emotional support.

Data from the State Taxation Administration shows that revenue from senior care services surged by 65.5 percent in the first quarter of 2025, while smart health monitoring device sales rose by 41.6 percent.

Experts predict that technologies like AI, IoT, and brain-computer interface will continue to reshape eldercare, driving a shift from passive aging to active, tech-empowered lifestyles.

Smart homes: towards seamless living

Leading Chinese appliance maker Haier exemplifies the shift from single smart products to fully interconnected living spaces. Its AI-powered range hoods adjust the airflow based on cooking intensity and exhaust pressure in real time, providing cleaner kitchens for millions of users.

Smart housing initiatives are underway in Shenzhen and Qingdao, where full-home control systems enable residents to manage appliances, utilities, and property services through a single app interface.

From AI scene-based interactions to eco-efficient designs, smart home technologies are becoming a global export strength. In the first five months of 2025, China exported over 184 million household appliances, worth 41 billion USD — a 6.1 percent increase year on year.

Experts estimate that by 2035, 90 percent of newly built homes in China will include fully digitalized smart home systems, including retrofitting older housing stock.

Immersive tourism: the new cultural renaissance

Cutting-edge technologies such as VR, AR, and 3D modeling are enabling virtual access to cultural heritage sites like the Mogao Caves in Dunhuang, northwest China. Through the "Digital Dunhuang" project, users can explore the ancient Buddhist murals in 4K resolution in their living rooms.

Immersive tourism is surging, from night tours at Yangzhou's Slender West Lake to high-tech stage shows like "Impression Mazu," which combines AR and fog-screen projections and grossed over 30 million RMB in its first season.

In 2024, China's digital culture and tourism industry earned 5.89 trillion RMB in revenue, marking a 9.8 percent increase over the previous year. Immersive technologies like VR, AR, and a wide range of sensors have helped break the constraints of time and space, enabling tourists to deeply engage with cultural heritage in innovative ways.

My China Story

Tajik Student's Path to Business Success

By YIN Wei & BI Weizi

"My ambition is to establish a company and promote closer trade ties between Tajikistan and China, thereby contributing to the economic development of my hometown [of Dangara]," said Temurzoda Amirhamza, a 24-year-old Tajik student at Tianjin University.

Temurzoda hails from Dangara city, located around 100 kms south of Tajikistan's capital, Dushanbe. Dangara has emerged as a key location for economic cooperation under China's Belt and Road Initiative (BRI).

In 2014, the Zhongtai New Silk Road Tajikistan Agricultural and Textile Industrial Park, which was funded by Chinese enterprises, began operating in Dangara. The industrial park is one of the largest textile facilities in Central Asia, covering the entire textile production chain, from cotton farming and spinning to weaving, dyeing and clothing manufacturing. It directly employs over 600 people and indirectly supports more than 2,000 local jobs.

"When I saw Chinese enterprises investing in and building industrial parks in my hometown, I realized that business could significantly boost employment and economic growth," said Temurzoda.

Motivated by these developments, he enrolled at Tajikistan National University to study finance and economics. During his time there, he recognized the popularity of affordable, high-quality Chinese tech products, such as smartphones and smartwatches, among Tajik youth.

This led him to begin importing goods from the Chinese e-commerce platform Alibaba and selling them on Instagram. Initially earning just 300 to 400 US dollars per month, his monthly profits soon rose to around 1,000 dollars. Within two years, he had amassed over 40,000 Instagram followers and created a stable customer base.

As his business expanded, Temurzoda formally registered his trading company and launched the brand Azon.tj, assembling a team to manage procurement, logistics, warehousing and IT operations.

"There's a Chinese saying: 'Although a sparrow is small, it has all the necessary organs.' This describes my start-up perfectly — small but comprehensive," said Temurzoda.

Economic cooperation between China and Tajikistan has deepened significantly in recent years. China remains Tajikistan's largest source of investment and an important trading partner. In 2023, bilateral trade between the two countries reached 3.9 billion US dollars, marking a record high and representing a year-on-year increase of 53.5 percent. As trade ties grow stronger, more and more young Tajiks, like Temurzoda, are coming to China to enhance their language and business skills.

Temurzoda first arrived in China in 2023 to pursue an MBA in International Trade and Management at Shanxi University of Finance and Economics. Although he excelled academically in the fully English-taught program, he realized upon graduating in December 2024 that improving his Chinese was crucial for future business pursuits upon graduating.

Following his professor's advice, he enrolled in a six-month intensive Chinese language course at Tianjin University, which is renowned for its expertise in international education. Since starting the program in March 2025, Temurzoda has rapidly improved his Chinese proficiency, passing the HSK Level 4 exam in May.

"Tianjin University's teachers tailored the courses to my needs," he said. He frequently practices speaking Chinese at local markets near campus, immersing himself in daily life and culture.

He also attends online international trade courses to learn practical business skills such as company registration, import and export procedures, customs clearance and taxation.

"China has opened a world of opportunities for me. I want to serve as a bridge connecting our two countries, strengthening economic cooperation and contributing to our mutual prosperity," he said.


Temurzoda Amirhamza. (COURTESY PHOTO)

Program for China-EU Young Scientists to Advance Global Science

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One flagship of Sino-European cooperation is the SVOM satellite — a joint astronomical mission between China and France to detect gamma-ray bursts (GRBs), the most violent explosion in the universe. Representing young Chinese scientists, Dr. Chen Wen from the Innovation Academy for Microsatellites at CAS shared SVOM's recent milestones.

Since its launch in June 2024, the satellite has detected 138 GRBs, including a major breakthrough this March: the capture of a GRB originating 13 billion years ago, the most distant one observed in the past 12 years. Dr. Chen described how SVOM's multi-band instruments work in coordination with other telescopes worldwide to record fleeting cosmic events.

Moumni concluded that the journey ahead is long, but the direction is clear. He is confident that China and Europe can light the path forward together — not only for the two sides, but for the world. "Let us begin the next chapter, where the greatest discoveries are made not through competition, but through collaboration."