

China Continues To Build Human Capital

Education is most highly esteemed in the Chinese society. It is the desire of many parents in China to provide the best education for their children.

The 2020 census indicated a population of around 170 million in China's 15-24 age group. There are some 3,000 higher-education institutions in the country. In the 2020/2021 academic year, there were 6.3 million bachelor's degree recipients, 728,600 master's degree recipients, and 66,200 doctor's degree recipients.

The country is now adding more full-time teachers to its school systems to prepare young people for college education. And the same thing is happening in postgraduate education.

Human Capital as a Competitive Advantage.

Anita Tang, Managing Director



Chicago-Area Company Recycling Carbon In China Takes Its System To Produce Jet Fuel In Illinois

LanzaTech, a leading biotech company and carbon recycler based in Skokie, has launched LanzaJet, Inc. to produce aviation fuel with Marquis Sustainable Aviation Fuel in Hennepin, Illinois.

Founded in 2008, LanzaTech has shared its pioneering technology to capture carbon for reuse with companies in China, Belgium, India, South Africa, Japan, as well as the United States.

LanzaTech uses microorganisms from rabbit droppings to ferment carbon dioxide, carbon monoxide, and hydrogen in emissions from steel mills and oil refineries (even from gasified garbage in Japan) and turn them into products such as fuel ethanol, jet fuel or chemicals used in production of nylon and plastic.

Ms. Jennifer Holmgren, LanzaTech's Chief Executive Officer,

says its carbon-recycling technology "is like retrofitting a brewery in an emission source like a steel mill or a landfill site, but instead of using sugars and yeast to make beer, pollution is converted by bacteria to fuels and chemicals. Imagine a day when your shampoo bottle started life as emissions from a steel mill."

She explains the importance of carbon recycling in dealing with climate change, which is fueled by emissions from sources such as autos or steel mills, in a Ted Talk on internet — "Recycling Carbon: from pollution to products."

Holmgren estimates that if LanzaTech's bioreactors were in place at the world's largest steelworks — accounting for roughly 66 percent of all productions — "it would be the equivalent of having 55 million cars off the road."

China Adds To Its System 1.48 Million Full-Time Teachers

China has recruited 1.48 million more full-time teachers for its compulsory education over the past 10 years, bringing the total number of such teachers to 10.57 million, revealed in statistics released by the Ministry of Education in June.

China now has 158 million students in 207,000 schools for the nine-year compulsory education, *Xinhua News Service* reports. The compulsory education retention rate reached 95.4 percent, up from 91.8 percent in 2012.

The nine-year compulsory education includes six years of primary school and three years of junior secondary school, with free tuition. Over the period between 2012 and 2021, a Ministry spokesman said, that all students that dropped out due to financial reasons were identified and helped back to school.

Xinhua reports that the country has also focused on equal education rights for children with disabilities. In 2021, some 920,000 students were studying in the country's special education institutions, up 142.8 percent from 10 years earlier.

A nutrition improvement program for rural students benefited 17 million children each year, helping the rate of relevant students passing the physical health tests increase from 70.3 percent in 2012 to 86.7 percent in 2021.

Over the decade, all levels of government have invested more than US\$148 billion to close the gap between urban rural school conditions and ensure all compulsory education schools have internet access.

Postgraduate Education In China On The Rise

More than 6.5 million master's and more than 600,000 doctorate degrees have been awarded in China over the past decade, according to the Ministry of Education.

China has made continuous efforts to improve the composition of disciplines and majors concerning postgraduate education, the Ministry reported in June.

Xinhua reports a Ministry account that the number of tutors has increased from 298,000 in 2012 to 557,000 in 2021, and that the proportion of full-time teachers with doctorate degrees increased from 60 percent in 2015 to 72 percent in 2020.

When The Homework Was Scrolled

Some Chinese students faced rigorous homework in ancient times.

A document unearthed in 1969 in Astana ancient cemetery in Turpan, eastern Xinjiang, indicates that school was no picnic.

The five-meter scroll was written by Bu Tianshou, a 12-year-old student in 710 AD, Tang Dynasty.

Bu transcribed several chapters of two books – the annotation of the Analects of Confucius by famous scholar Zheng Xuan and The Thousand Character Classic – a Chinese poem used as a primer for teaching Chinese characters to children in ancient times – both were readings assigned to Bu.

His reaction has a familiar ring, according to Dilinur Maiming, a docent at Turpan Museum, as reported by *Xinhua*. At the end of the homework scroll, Bu wrote, “Today’s homework is finished. Teacher, please don’t delay the class, and let us go home early.”

Of other importance, the scroll and others like it found in the tombs of Astana have provided valuable information for the study of the classic works of Confucianism, said Chen Aifeng, deputy dean of the Institute of Turpan studies. They also showed that “a relatively complete education system” had been established in the Tang Dynasty.

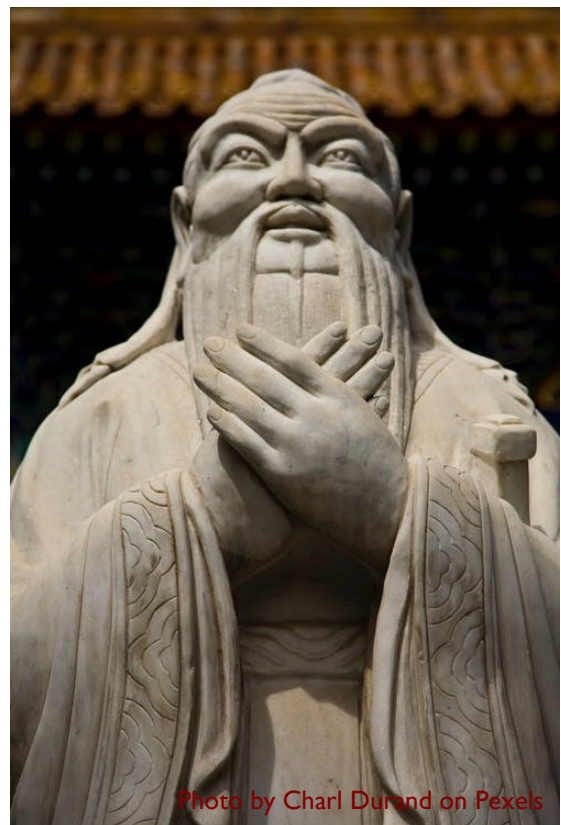


Photo by Charl Durand on Pexels

China Showing Success In Preserving Heritage

When the United Nations Educational, Scientific and Cultural Organization (UNESCO) took note of World Heritage Day on April 18, 2022, it was apparent that China's effort to celebrate its ancient heritage was succeeding.

World Heritage Sites are designated by UNESCO for having "cultural, historical, scientific or other forms of significance. The Sites are judged to contain cultural and natural heritage around the world considered to be outstanding value to humanity."

The 2022 total of 1,154 World Heritage Sites (897 cultural, 218 natural, and 39 mixed properties) exist across 167 countries. China, with 56 sites, was second to Italy, with its 58, and led Germany (51), France (49), Spain (49), India (40), Mexico (35), the United Kingdom (33) and Russia (30).

As might be expected, China's Great Wall is listed, and the Mausoleum of the First Qin Emperor with its legions of Terracotta Soldiers, but so are lesser-known Sites such as the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf. The complete list, with map and pictures, can be accessed: https://en.wikipedia.org/wiki/List_of_World_Heritage_Sites_in_China.

A Decade of Commitment

Over the past 10 years, the local governments of 27 provincial-level regions have factored the preservation of cultural heritage into the performance evaluation, according to *Xinhua*'s report on a national conference on cultural relics held in Beijing in July. "Provincial-level protection of cultural relics has increased by 58 percent and municipal and county-level has grown by 88 percent."

Major archeological projects, such as one to trace the origins of Chinese civilization, have achieved new success. In particular, the conference learned, Chinese archeologists have broken new grounds in more missions.

Archaeological finds are increasingly going on display, as at the Shaanxi Archaeological Museum, in Xi'an. The Museum shows technology-assisted work with photographs and recreations of sites and interactive devices; it offers a close look at ancient treasures and a deeper understanding of history. One eye-catching exhibit is a bronze chariot dating from the Western Zhou dynasty (1046 B.C.).

Demonstrating the attention China is paying to discovering the extent of its historical cultural and sharing the information with its people, the Museum

has 9,200 relics on display, most of them exhibited for the first time. Archaeologists "packaged" the whole excavation site and spent three years restoring the chariot.



The preservation and display of China's heritage is taking on new forms. It is one key to China's new urban redevelopment agenda, which requires cities to strike a balance between improving urban infrastructures and protecting and inheriting time-honored treasures. In Xi'an, for example, an abandoned textile factory plant beside an ancient city wall built some 600 years ago was transformed into a lively market in 2021. Another example of reaching into the past, one city block in Xi'an has been recreated as it might have looked when it was home to world-renowned Terracotta soldiers created in 221-207 B.C.

Recovering and displaying its cultural heritage is bringing China attention in a number of ways, including a comment by Argentine scholar Mercedes Giuffr , professor of history at the National University of Mar del Plata, to *Xinhua*: "China's long, rich multifaceted culture 'can serve as a bridge' between the East and West to promote communication and understanding."

China Promotes Urbanization By Developing County Seats

China plans to boost the development of county seats to promote urbanization.

This is expected to spur modernization of rural areas, and expand domestic consumption and investment – a top China goal, with more rural people – while creating more jobs and improving the lives of residents, according to a *Xinhua* report of guidelines issued in May by the National Development and reform Commission (NDRC).

By the end of 2021, China had 910 million permanent urban residents, of which 180 million were in county seats. By 2025, it is expected that many coun-

ty seats will be improved in a well-rounded way, with more working and residing in county seats.

In process of developing these basic government units, China will focus on cultivating competitive industries and improving public infrastructure and service, while making medical care, education, and elderly care more accessible in the rural areas surrounding county seats.

China's urbanization rate of permanent residence was 64.72 percent in 2021, reported the NDRC, with a goal of 65 percent during 2021-2025.

Chicago Wellness Park Borrows Shanghai Ideas

Chicago gained its first Adult Awareness Park on April 25, 2022, because members of its Sister Cities Program were so impressed with Shanghai parks – and their possibilities for play – during visits that they advocated such parks for Chicago.

During their first delegation visit to Shanghai in 2015, Andy Teitelman, Dorothy Morhardt, Phyllis Mitzen, and Esther Wong were delighted in playing on equipment suitable for people of all ages and abili-

ties. Every time the delegates visited Shanghai, they saw similar adult playgrounds in every park and outside of each residence for older adults. They brought this concept to Chicago Alderman Brian Hopkins and the City arranged for an Adult Wellness Park to become part of its popular Lake Shore Park.

“People don’t outgrow playgrounds,” commented Hopkins, “Playgrounds outgrow people.” Not in Shanghai, and not anymore in Chicago.



Photo: Courtesy of Chicago Park District



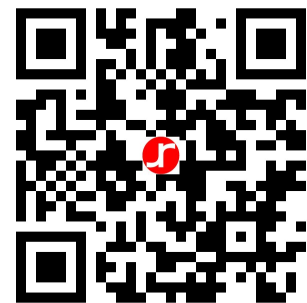
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