

Futuristic Dubai office showcases 3-D printing's potential

June 1 2016, by Adam Schreck



In this Tuesday, May 31, 2016 photo, a woman passes in front of what the United Arab Emirates says is the world's first functional office building made using three-dimensional printer technology, in Dubai, United Arab Emirates. Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future" that's due to open in 2018. Dubai hopes the project will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. (AP Photo/Kamran Jebreili)

There are office printers that spit out documents and others that always seem to jam. And then there those that make the office itself.

A small group of employees in Dubai is starting to move into a new workspace that the emirate says is the world's first functional office building made using three-dimensional printer technology.

Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future " that is due to open in 2018.

Looking like a mashup of a "Jetsons" abode and an Apple Store, the compact office was printed out layer by layer over 17 days at a cost of \$140,000, said Saif al-Aleeli, the CEO of a government initiative called the Dubai Future Foundation that is behind the project. Features include a tree-shaded outdoor garden deck and LED lights that automatically adjust to the brightness outside.

"Why 3-D printing? Because it makes sense in terms of cost, in terms of time-saving, in terms of efficiency," the 29-year-old al-Aleeli said. "We really believe that this technology will revolutionize the construction, the development sector as well as other sectors, (including) the medical sector (and) consumable products."



In this Tuesday, May 31, 2016 photo, two women pass what the United Arab Emirates says is the world's first functional office building made using three-dimensional printer technology, in Dubai, United Arab Emirates. Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future" that's due to open in 2018. Dubai hopes the project will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. (AP Photo/Kamran Jebreili)

Products made using 3-D printing are first designed on a computer and then printed out using a variety of materials, including metal, plastic and concrete.

Developers are finding a growing number of uses for the technology as it evolves.

European aeronautics giant Airbus just unveiled a lightweight electric printed motorcycle made from aluminum alloy particles, while a

Wisconsin schoolteacher recently fashioned prosthetic feet for a duck who lost his due to frostbite.

The technology has been used in other construction projects too, including a Dutch canal house being raised in Amsterdam. But the foundation says its Dubai office is the first "fully functional 3-D printed building," constructed with full services and meant for daily use.



In this Tuesday, May 31, 2016 photo, a man walks inside what the United Arab Emirates says is the world's first functional office building made using three-dimensional printer technology, in Dubai, United Arab Emirates. Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future" that's due to open in 2018. Dubai hopes the project will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. (AP Photo/Kamran Jebreili)

The Chinese company WinSun Global used a 20-foot tall printer squirting out cement and other materials to produce the 17 building modules for the new Dubai office, according to the foundation. The pieces were then shipped from China to the Gulf port city, where it took workers two days to piece them together.

Further work, including the installment of the interiors and landscaping, took another three months. Designers left open part of the finishing in the foyer so visitors can see how the 3-D printed layers came together, row after squiggly row.

The building occupies prime real-estate between the city's iconic twin Emirates Towers and the Dubai International Financial Center, which is a stand-in for a futuristic city in the forthcoming "Star Trek Beyond" film.

The site will serve as the temporary offices for between 12 and 20 foundation staff members for now. Dubai hopes it will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. It has an ambitious goal of using 3-D printing in a quarter of all buildings by 2030.

"The future will be 3-D printed," al-Aleeli predicted. "I won't be surprised if in 20 years down the road whole cities will be 3-D printed."



In this Tuesday, May 31, 2016 photo, an outdoor cafe accompanies what the United Arab Emirates says is the world's first functional office building made using three-dimensional printer technology, in Dubai, United Arab Emirates. Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future" that's due to open in 2018. Dubai hopes the project will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. (AP Photo/Kamran Jebreili)



This Tuesday, May 31, 2016 photo shows what the United Arab Emirates says is the world's first functional office building made using three-dimensional printer technology, in Dubai, United Arab Emirates. Dubai's ruler quietly inaugurated the whitewashed buildings last week, not far from the site of a planned "Museum of the Future" that's due to open in 2018. Dubai hopes the project will kick-start its plans to transform the sheikhdom into an incubator for emerging technologies. (AP Photo/Kamran Jebreili)

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