

Kazakhstan Pavilion – Gateway to tomorrow

INTERACTIVE INSTALLATIONS – SHORT SUMMARY

The Kazakhstan Pavilion is part of the World Exposition 2020 in Dubai. From the nomadic land of the Kazakh steppe to the future vision of the country, visitors are invited on a user-centred journey through heritage and innovation. Thanks to a fantastic interdisciplinary design & artist team we had the chance to design and develop multiple interactive installations to extend the visitors experience in a playful and educative way.

CREATION & REALIZATION

The Periodic Table Game

In Kazakhstan 99 of the 118 elements of the periodic table can be found. The periodic table game provides a playful experience to learn about their chemical properties, reactions and real world applications.

With over 26 different chemical formulas the experience is a deep exploration of chemical reactions and the properties of the elements of the periodic table. Visitors can also filter elements to understand more clearly the different chemical groups and periods.

When elements from the given tasks are found, visitors can drag-and-drop them into the reaction lab to experiment different chemical combinations and cause their individual reactions.

Natures Algorithm

Within the exhibition about Kazakhstan's biodiversity, the interactive piece Natures Algorithm invites visitors to feel how their presence influences the world around them and playfully experience the interdependence of the ecosystems and the role of man within the natural world.

A real-time 3d motion camera tracks the visitors movements and allows to play poetically with the grass of the Kazakh Steppe. Visitors can appreciate how colorful the steppe is over the running seasons. Dancing, running, standing still; as many ways as possible to experiment interactive particles and organic elements.

Realized in vvvv with custom GPU based algorithms to generate the movements behaviour.

Interactive Clothing

This station invites visitors to virtually experience traditional nomadic clothes by looking into a virtual mirror.

The garments are mapped to the body movements of the visitor in real-time. The screen is equipped with a 3D camera and a custom software which identifies the

visitors body parts and rigs them on the virtual 3D garments. Visitors can switch between men and women garments from a simple hand interaction. The result is an interactive experience which playfully allows to study patterns and shapes of traditional Kazakh garments.

Building A Yurt

The yurt is the traditional nomadic dwelling used in the Kazakh Steppe. Made to be portable, it offers great protection for the nomads.

In this 3D real-time game, visitors are invited to assemble a yurt step-by-step and learn why nomads understand a yurt as a model of the universe. Starting from an abstract point cloud representation, visitors assembling the yurt to a complete and textured model of the housing. Visitors can discover the construction from different perspective by freely moving around and zooming into details. As the yurt gets built, visitors learn the meaning of each part that constitutes it.

SUCCESS & FEEDBACK

More than 1.6 million visitors and overwhelmingly positive feedback – as well as the enthusiasm and pride with which the client Kazakhstan, QazExpoCongress, showed interested visitors the pavilion – indicate just how successful this project has been.

Selected visitor feedback:

- If I have to rate the Pavilion from 1 to 10, it would definitely be a 10. Because it's so innovative, and so new, it's something that you never saw before! And it's also interactive.
- One of the greatest pavilions so far. The architecture is beautiful, the performance was immaculate, so great and nice fusion of the traditional and the conceptional.
- We found it very enlightening and humble, energetic and really beautiful. It really touched me, thank you so much for showing this!
- It's one of the best! It was very nice, especially the technology and the impact it had.
- The journey took us to a very different concept, and we enjoyed it so much, thank you!

AWARDS

The Kazakhstan Pavilion has won the BIE Expo's Silver Award for excellent Theme Interpretation in the L/XL Pavilions category.

The Kazakhstan Pavilion was also an Exhibitor Magazine World Expo Award winner in the 'Best Large Pavilion' category.