

Making the impossible possible



Building a glacier in the dessert. It seems impossible, but artist Ap Verheggen, together with experts from Cofely Refrigeration, successfully conducted the first tests to prove different.

Verheggen, known from previous arctic projects that drew attention worldwide, in cooperation with Cofely Refrigeration, specialist in cooling technique, proved that it is possible to generate a glacier in a dessert in a 'climate simulation'. They discovered that it is possible to create ice in extreme dry and hot conditions. By using solar energy in the most optimal way it can even be done without adding water. This is an important step in realizing an new art project: SunGlacier.

Verheggen faced melting glaciers in Greenland last year for his previous project; Cool(e)motion. He wondered if it is possible to create a glacier on another location. To explore the boundaries of what is possible, Verheggen chose the extreme drought and heath of the dessert. The artwork will withdraw the moist necessary to produce the ice from the air. The project is supported by UNESCO-IHE, the water training institute of the UN, of which Ap Verheggen is the cultural ambassador.

"We live like fish in the ocean. We just don't see it", says the artist.

"The absolute amount of water in the air of a dry dessert doesn't differ that much with greener places. The concept of relative humidity is often misconceived." Cofely Refrigeration, together with Verheggen conducted tests to prove that with solar energy huge amounts of ice can be made. Verheggen: "We knew that it was possible in theory, we now proved it in reality in a specially designed climate chamber". In that chamber the extreme conditions of the dessert are mimicked. "The results convince us that it is possible to create lots of ice in the dessert."

Verheggen's recent work is all about the relation between climate change and human culture. Verheggen: "During the last project, cool(e)motion, we showed how fast Inuit culture should change as a result of climate change. At the same time I want to encourage people to remain

positive on our future and use our creative ability to come up with solutions. This project therefore is a logical next step and the fact that it works is great news. SunGlacier demonstrates the dynamic connection between climate and culture and wants to be a symbol for hope and creativity. “With the project we show that things that seem impossible can be made possible, even with existing technology.”

The design is inspired by a leaf, according to Verheggen the most efficient user of solar energy. The top side is covered with solar panels. The conducted energy is used to cool the downside far below freezing point. The moist present in the air will freeze at the surface, thus creating ice. A perpetuum mobile, one could say.

After all the tests are finished Verheggen will start his search for a location. “I’m convinced that we will find it soon”, says Verheggen. “We’ll keep you posted.”