

Mind-bending helmet: I spy with animal eyes

Eithne Shortall

TWO Irish artists have designed headsets that let the wearers see the world as animals do. The project, inspired by a 19th-century scientific invention, has had more than €24,000 in state funding and is to go on show at the Natural History Museum in Dublin.

Denis Connolly and Anne Cleary, who have exhibited at venues around Ireland and in the Pompidou centre in Paris, have designed six headsets that incorporate prisms, lenses and periscopes. These enable users to perceive the world in the manner of a hammerhead shark, giraffe, chameleon, horse and the fictional Cyclops from Greek mythology.

Another headset is inspired by the Cheshire Cat from Lewis Carroll's *Alice Adventures in Wonderland*.

"Part of the interest for us is presenting it as a challenge," said Connolly. "Some people will put them on for a second and go, 'Uh, that's weird.'"

The artists have previously designed headsets using LCD screens that allowed users to perceive the world upside down and in inverted colours. They have eliminated the screens for this project in order to make the visual experience more authentic.

The hammerhead shark helmet uses periscopes and lenses to increase the user's depth of vision five-fold. Human beings have about a 6cm gap between their eyes, allowing us to perceive the depth of objects up to seven metres ahead. Hammerhead

sharks have one metre between their eyes, allowing them to judge the depth of objects up to 30 metres in front of them.

The chameleon headset uses prisms to enable people to see behind and in front at the same time. The horse headset allows wearers to see almost 360 degrees around them. It is made using fish-eye lenses, prisms and weights.

"Horses have peripheral vision; they don't have eyes to the front," said Connolly. "The only thing that stops them seeing right behind is their bums, and they have a slight blind spot in front of them."

"I have no idea what that will do to people. I expect it will wreck their heads a little bit."

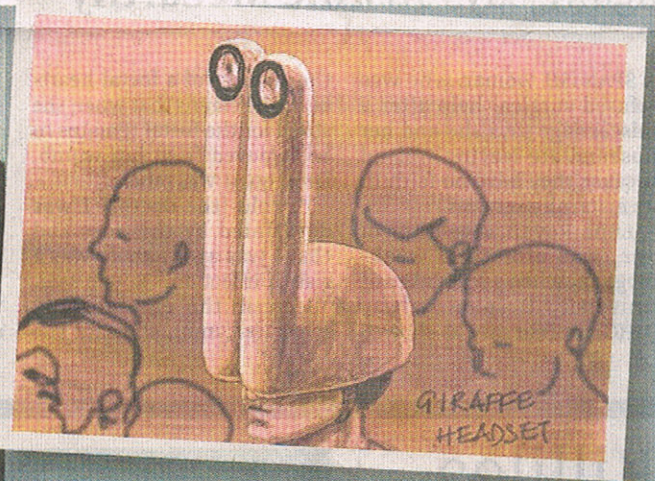
The giraffe headset is made with periscopes and allows users to see the world as if they were 8ft tall.

"It's particularly interesting if you're walking in a crowd. If you've ever worn platform shoes, you know what an amazing difference that makes," said Connolly.

The artists have also created a Cyclops helmet, which incorporates bifocal lenses to bring the vision of both eyes into the centre. One eye will provide a close-up image, while the other gets a wide-angle view of the world.

The Cheshire Cat helmet incorporates mirrors and lenses. It feeds different information to each eye, allowing users simultaneously to see in front and to one side at the same time.

The helmets are to go on display at the Natural History Museum on Merrion Street next year. The Arts Council has provided €24,685 in funding.



Cleary and Connolly have designed helmets, right, that mirror a view of the world as seen by various creatures

Connolly and Cleary have completed the helmet designs and are now seeking industrial or scientific partners to help with construction.

The project was inspired by the work of George Stratton, a 19th-century American scien-

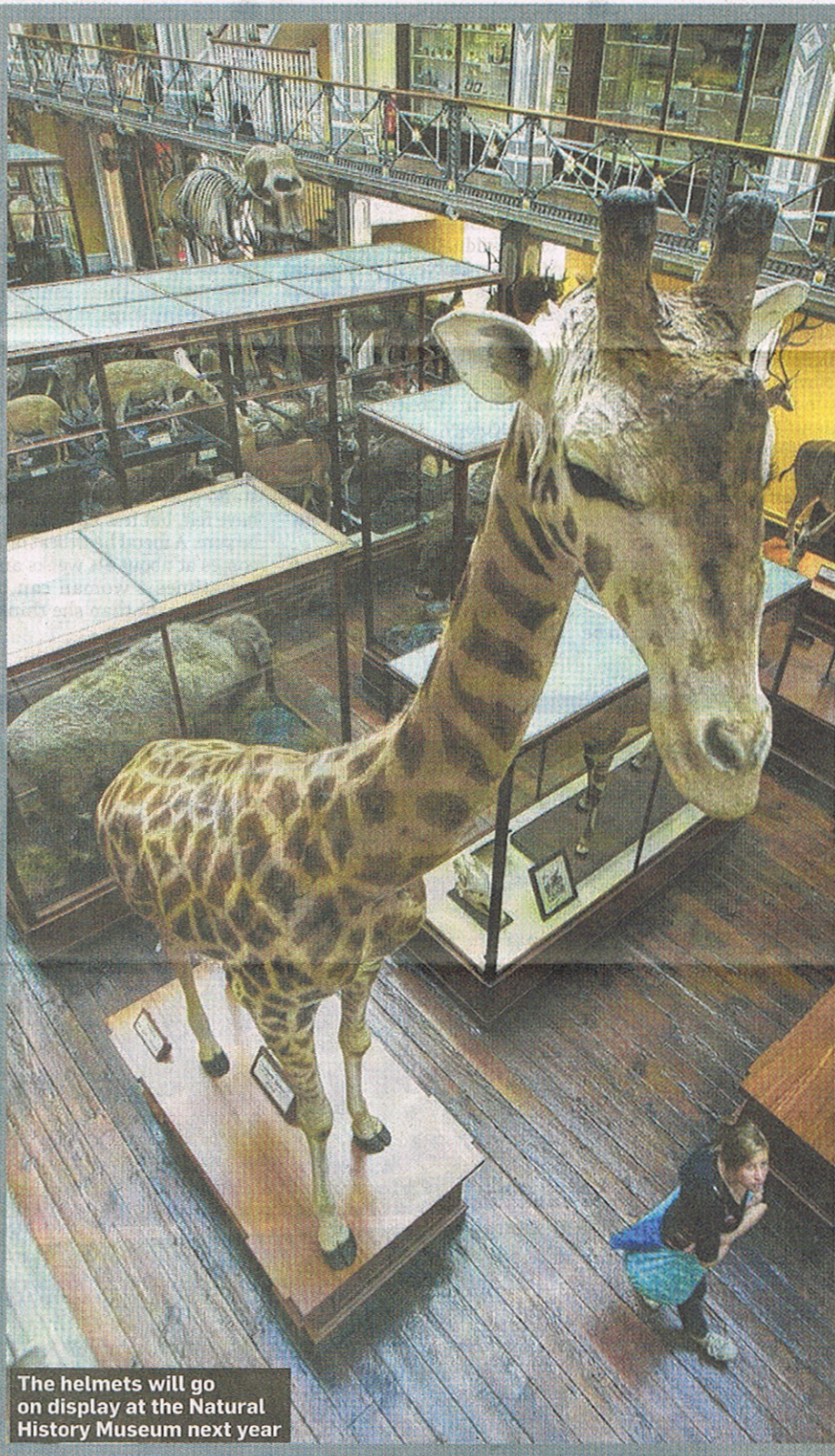
tist who created glasses that inverted his vision using similar optical technologies. He wore his contraction for eight days. Initially, he felt ill but by day seven had fully adjusted.

"You could catalogue most artists' strategies as [trying to] shift perceptions; giving you a way of looking at things that you haven't had before," said Connolly.

"About 50% of our brains are concerned with looking at the world and we take a lot of it for granted. Once you shift your perception, it raises your consciousness of what you're looking at."

Other projects funded in the Arts Council's most recent round of project awards include a new play by Wexford playwright Jim Nolan and a version of *Romeo and Juliet* to be directed by Selina Cartmell.

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