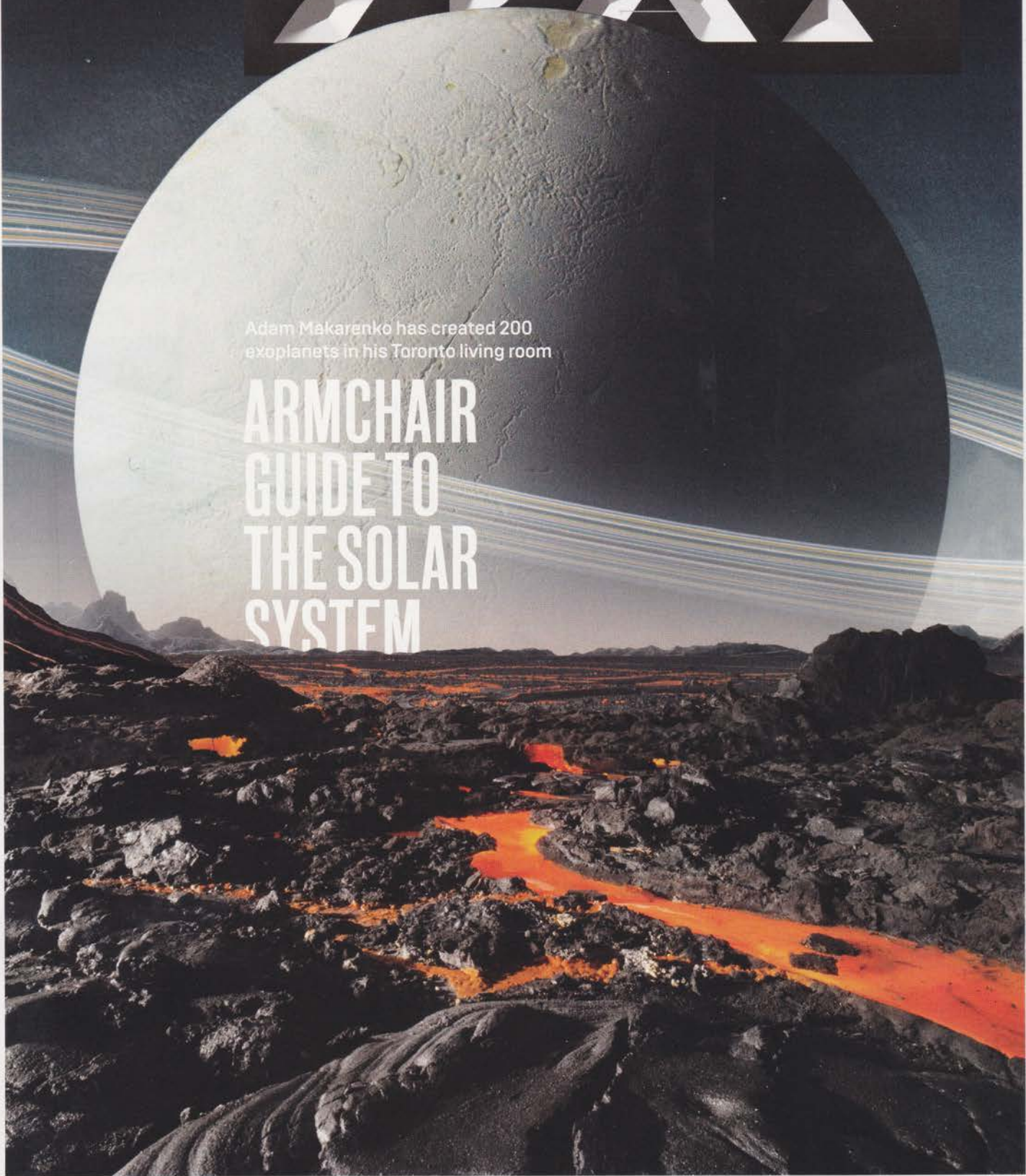




Adam Makarenko has created 200  
exoplanets in his Toronto living room

# ARMCHAIR GUIDE TO THE SOLAR SYSTEM



Above: Adam Makarenko's *View from a Volcanic Moon*

Armchair guide to the solar system (continued)



Above: Adam Makarenko at work in his Toronto studio

**A**dam Makarenko wants to change the way we look at space – so he creates miniature exoplanets in his living room in Toronto, Canada. Makarenko, 43, has been creating models since 2006 and began building exoplanets in 2016. “There’s so much discovery [of exoplanets] going on at the moment, and this keeps the [model] project going for me,” he says. “The idea is that we’re reaching out to the Universe with this extra appendage and we can see

things we can’t normally see.”

Makarenko’s miniature solar system comprises 200 exoplanets, each of which takes him a day to complete. To create the miniatures, he experiments with materials such as enamel paint, ferric chloride, baking soda and glue to create texture, light and crystals. He then photographs each aspect individually before weaving the scenes together using Photoshop. But there’s a challenge that

comes with photographing objects that range in size from 60mm to 220mm: “In the miniature world, depth of field becomes shallow really fast, so you have to layer things and create false perspectives.”

The miniatures are speculative rather than recreations of discovered exoplanets, but Makarenko says the sheer volume of what’s in outer space means they might not be that far off. “We can’t actually see them but we know that there are gas giants or rocky worlds out there.”

Makarenko plans to create 1,000 of his

miniature worlds, compiling them into a book alongside essays written by astronomers. He has recently shared his hyper-realistic space scenes with Nasa and the WM Keck Observatory in Hawaii. The series, he says, is a new way to explore exoplanets in a field dominated by paintings and CGI models. “It’s a different way of looking at conceptual space art,” he explains. That’s one small set for man... **Bonnie Christian** [adam@makarenko.com](mailto:adam@makarenko.com)

# A NEW SPIN ON ART'S HISTORY

Mat Collishaw blends 19th-century ideas with 21st-century methods



As well as protecting *Centrifugal Soul*, the barrier around it is designed to resemble a trap, hinting at dangers within