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Article

Planet City

Liam Young

Southern California Institute of Architecture (SCI-Arc)

Abstract

Planet City is an urgent examination of the productive potential of extreme densification in an imagined future where ten billion people surrender the rest of the planet to a global wilderness. In a vision that runs counter to our current world, the project describes a radical reversal of planetary sprawl, where humans retreat from our vast network of cities and supply chains into one hyper-dense metropolis. Not a techno-utopian fantasy, this work of critical architecture and speculative fiction is grounded in statistical analysis, research, and traditional knowledge.

This is essay has been developed from the transcript of the Planet City TED Talk delivered August 2021, it is based on a project that was the subject of a book Planet City published by Idea Books in 2020 and an accompanying film.

Keywords

Architecture, Planet City, urban imaginary, possible futures, speculative architecture, hyper-dense metropolis.

PLANET CITY

10,157,030,257 people
221,376 sq km of building
1,412,534 neighborhoods
121,307 sq km of hydro-electric canals
49,445,671,570 solar panels
932 zettabytes of data
2,357 alage farms
342,465,700 fish
42,877,520,340 Fruit Trees
7,047 languages spoken
2,555 cultural festivals and holidays
42,457 TV Channels
684,931,530 heads of lettuce
2,034,965,388 tomatoes
6,396,867 dentists
148,200,520 square kilometers of protected park
1 city

All cities are fictions. Their literal edges are nebulous, with their physical definitions being endlessly rewritten, but their boundaries come into focus as shared narratives. The fiction of a city weighs as much as its physical shadow. Such cities can exist on the network or exist as consensus. They are shaped like stories and coalesce around common practices or conditions of belonging. They are lived and occupied, read and watched with consequence and meaning. They are products of culture and, in turn, produce culture. The urban imaginary has always been a site to test out new scenarios and emerging cultures. Whether it be speculation around the impacts of industrialisation and mass production, the imminent arrival of driverless cars, seamless augmented reality, or artificial intelligence, these fictional worlds give form to our most wondrous technological possibilities and gravest concerns. The history of future cities is a chronicle of the hopes, dreams, horrors, and anxieties of the time in which they were made. They are the architectural and

Figure 1. Planet City, film still, 2021

Figure 2. Planet City, film still, 2021

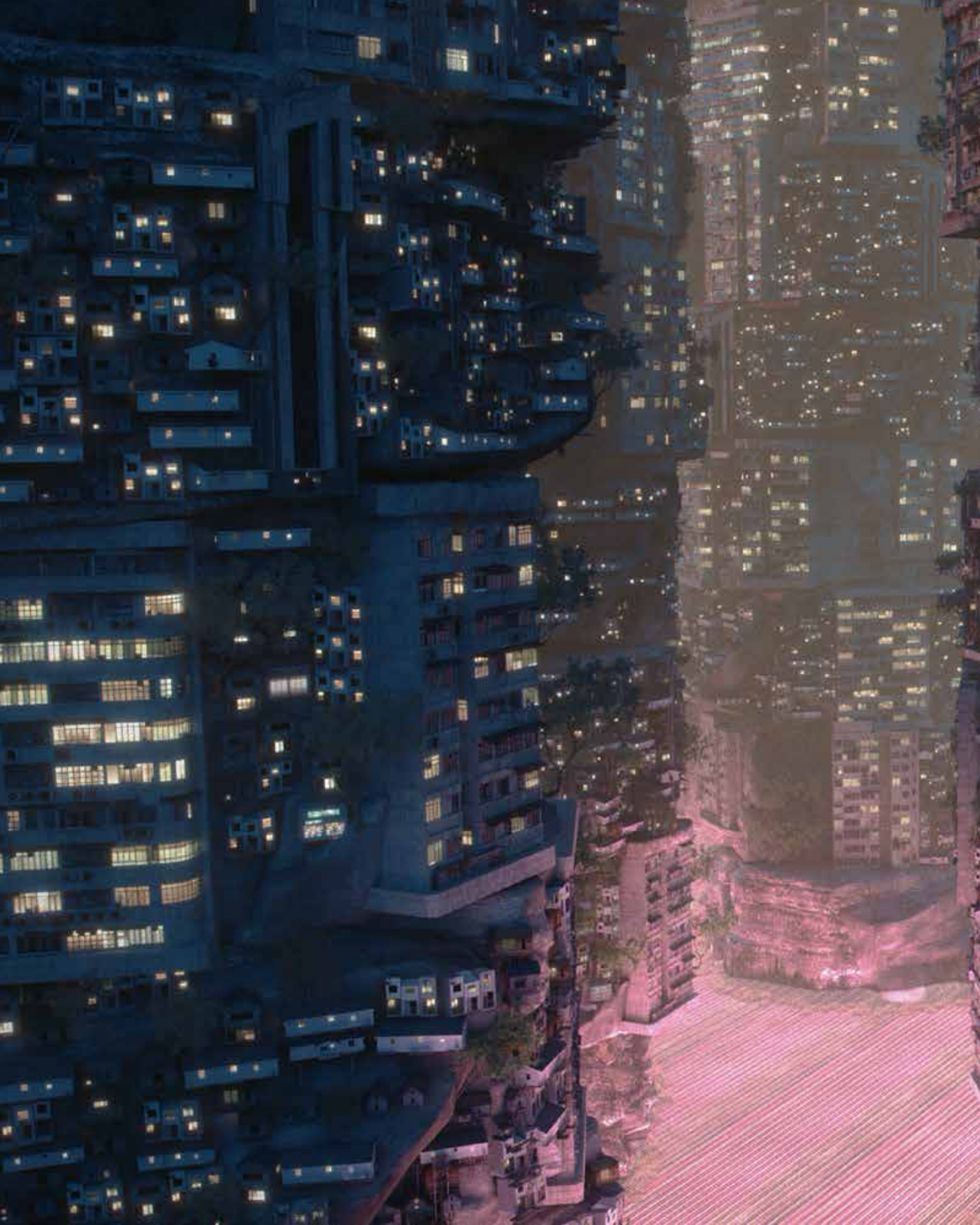


Figure 3. Planet City, film still, 2021

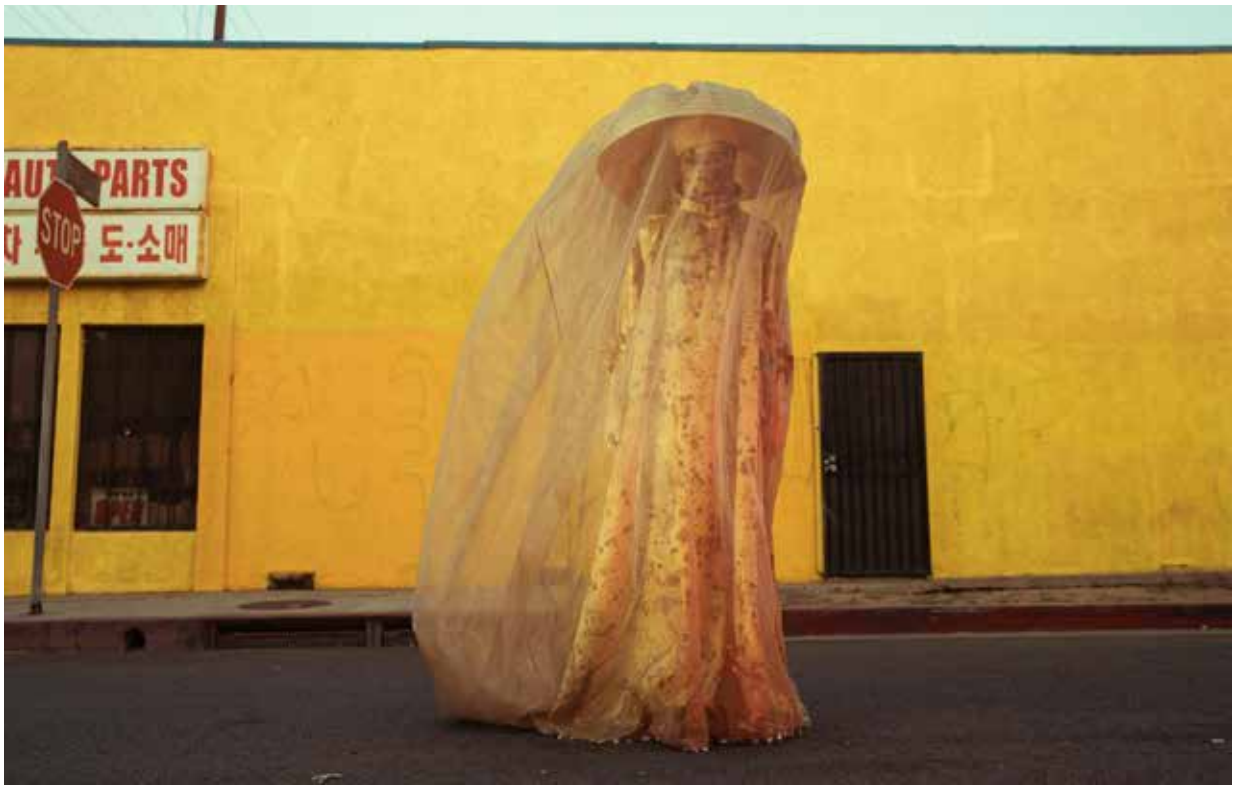


Figure 4. Planet City, costume stills, 2021

urban construction of ourselves, fraught with contradictions, encoded with the concerns of the present.

We have been creating Planet City in response to the rising red line on the graph of climate change but worldbuilding and storytelling can do much more than just visualize this data it can dramatize data. In speculative cities such as this we can immerse ourselves in the various consequences of the decisions we face today. They can be both cautionary tales or roadmaps to an aspirational future. As we watch the film of Planet City we can begin to imagine ourselves standing alongside its algae canals. We can imagine how it would feel to be one of the 10 billion people who live here. To hear the hums and crackles of flickering blue and red LED's that illuminate the lower reaches of the cities farm fields. It smells of soil, and hard drives, and sweet fruit, a purple sunrise over a new kind of wild.

5 years ago seminal biologist Edward O Wilson proposed a new world he called "Half Earth", a plan to stave off mass extinction by devoting half the surface of the earth completely to nature and consolidating human development to the half that remains.

This is where the speculation of Planet City begins but as we started to design and visualize this radical reversal of our planetary sprawl we soon realised that we could actually go much further. In its most provocative form, if we were to reorganize our world at the intensity of the densest cities that currently exist then Planet City could actually occupy as little as .02 percent earth.

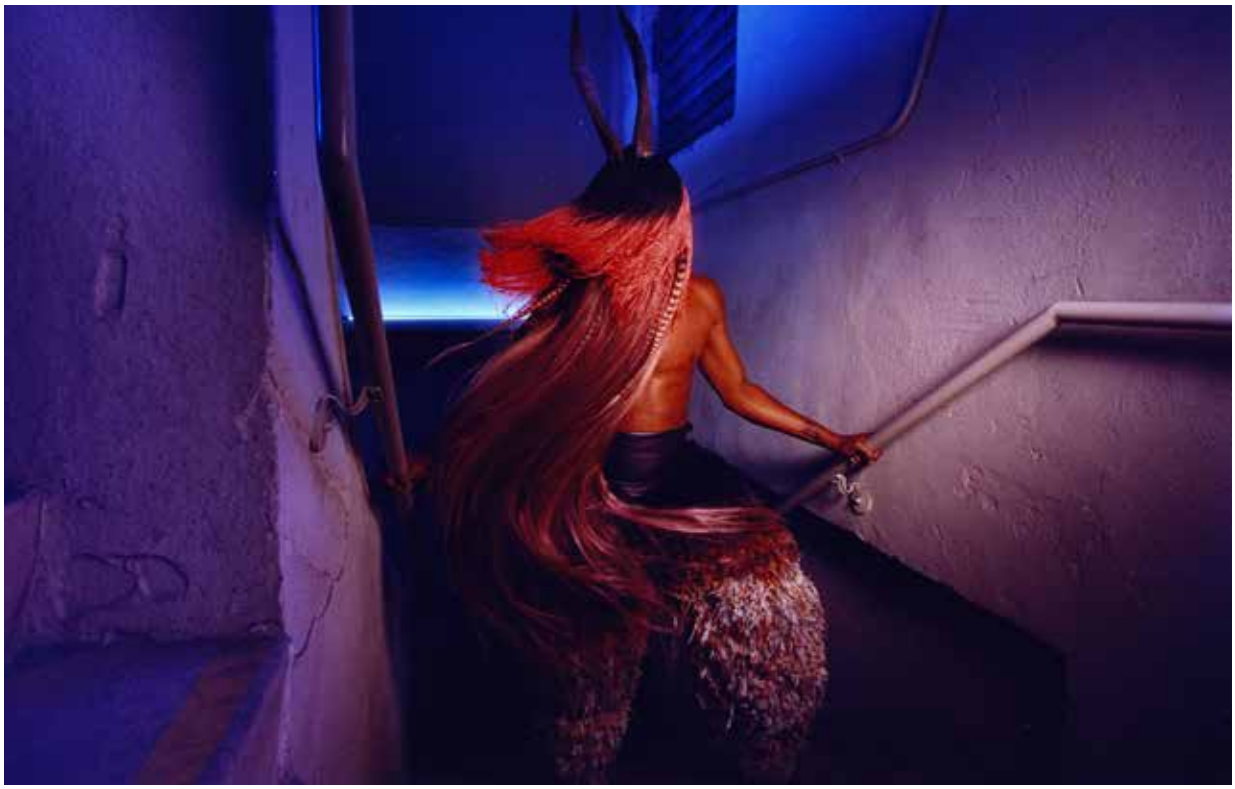


Figure 5. Planet City, costume stills, 2021

Could we imagine coming to a global consensus to retreat from our vast network of existing cities into this one hyper-dense metropolis?

Our imaginary city would allow us to surrender the rest of the globe to nature, to return stolen lands and rewild in our wake. A new national park of the world, to be visited and tended rather than engineered for extraction. The invisible lines that once divided us would fade beneath a planet of trees. In the streets of Planet City we can prototype some of the necessary lifestyle changes that will be required for us to continue to sustain human life on this planet. We can explore how such a new world could evolve, not in a singular forced move but in a slow multi- generational retreat from the world we once knew. To build Planet City we will mine our old cities rather than virgin ground. No new resources would need to be extracted or consumed to build this future. The world's shipping fleet that used to scatter matter ripped from the earth into our malls and storefronts could be reversed and repurposed, to bring all that material back together again into the geological strata of the new city. The ghosts of nation states would give way to the city's new neighborhoods that are formed around shared cultural practices as we perform new myths of care, belonging and re-creation. If we map out all the world's festivals on a calendar then we realize that running through Planet City would be a continuous festival procession dancing across a 365 day loop. Each day, amongst the flittering confetti, it would intersect with another carnival or culture, endlessly cycling through new colours, costumes and cacophonies.

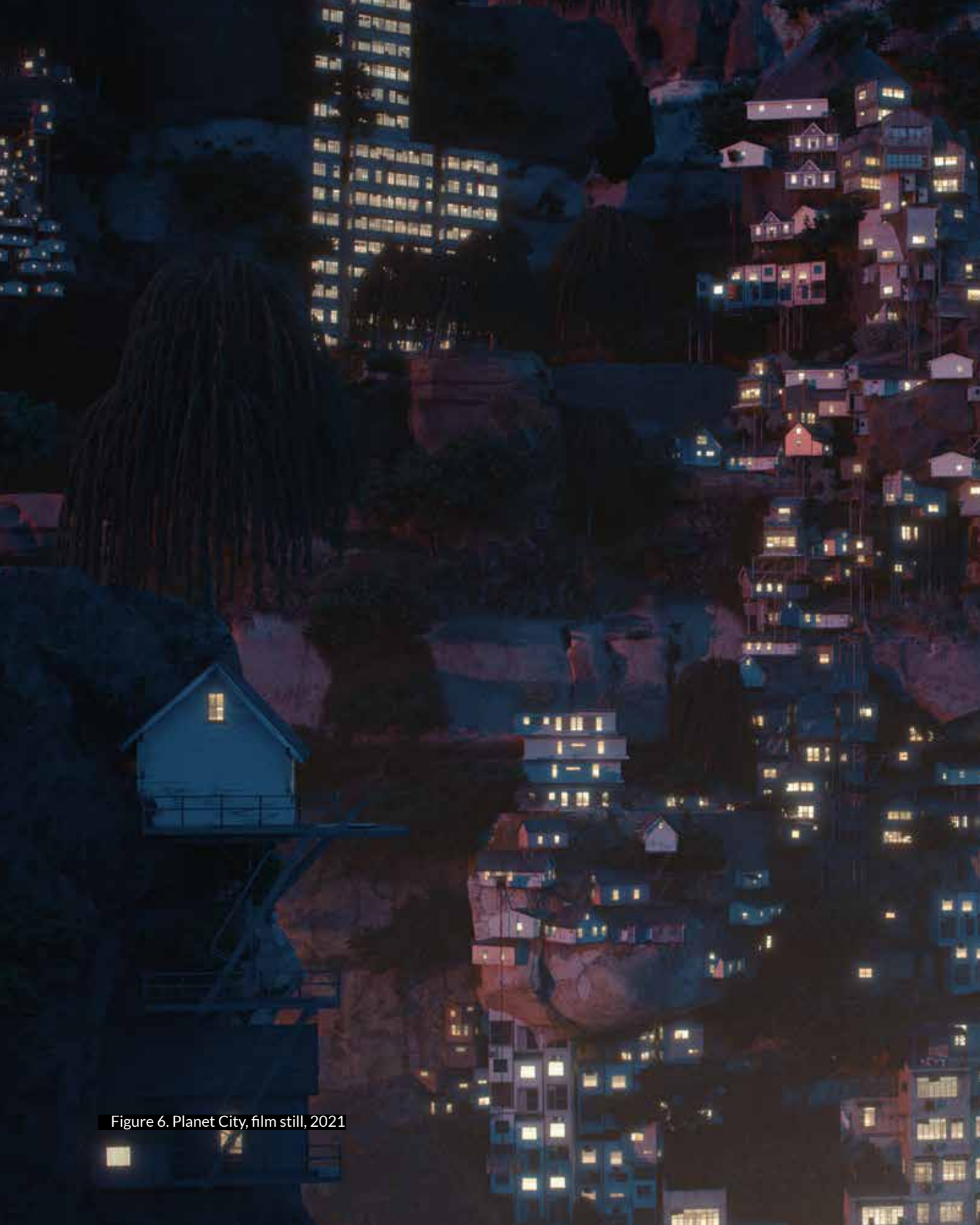


Figure 6. Planet City, film still, 2021

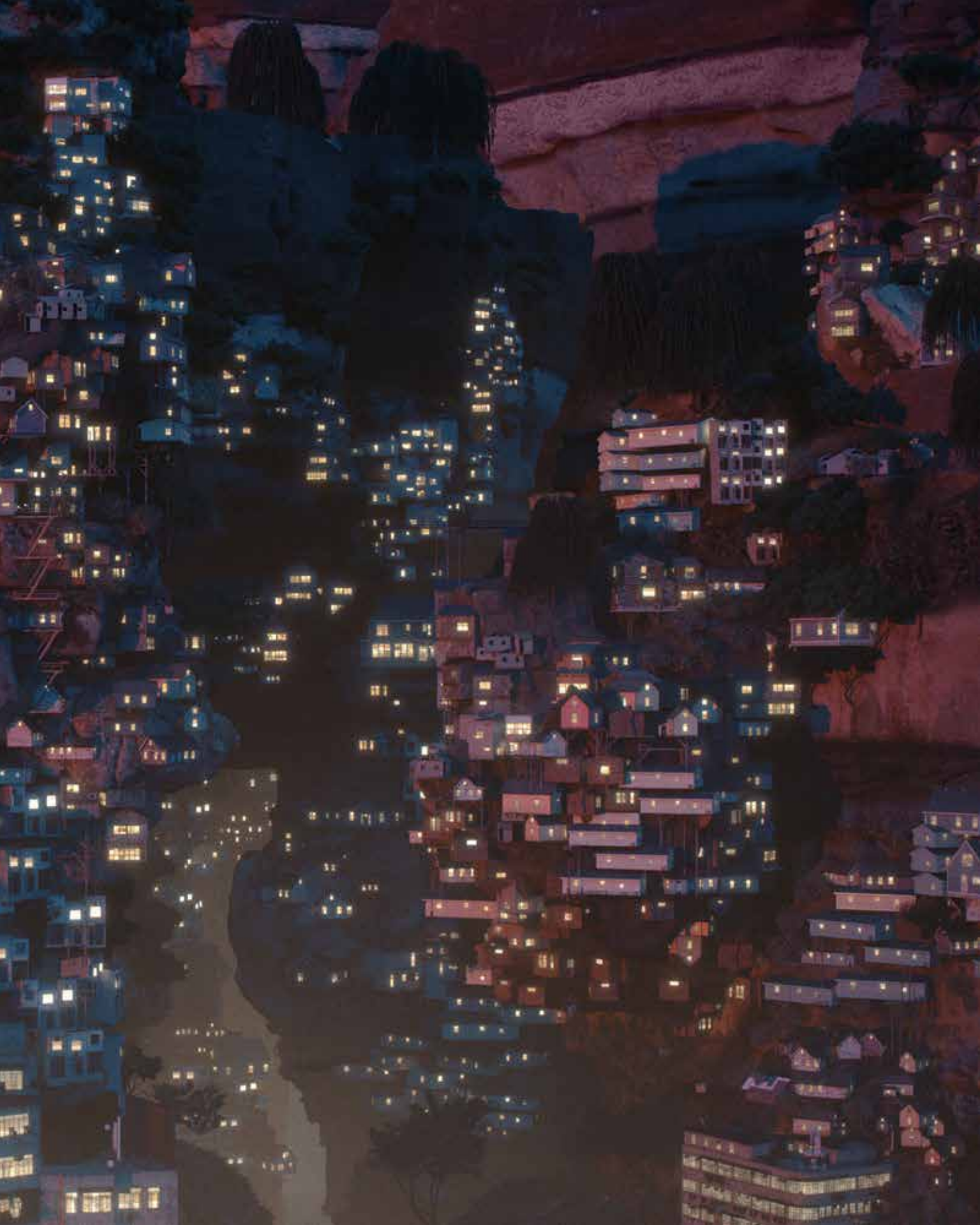


Figure 7. Planet City, costume stills, 2021

To design the systems of Planet City we travelled to, researched, and filmed the mega scaled renewable energy and agriculture sites that already exist around the world today. The world's largest thermal solar plant in the Mojave desert, the illuminated indoor farms protecting crops from harsh Siberian winters, the most productive wind energy network located in Gansu, China, the world's largest algae farm in Western Australia. These monumental infrastructures are evidence that much of the technologies required to regenerate our climate are actually already here. In Planet City we remove the political roadblocks or lack of cultural investment that currently holds them back and visualize how they could operate at global scales, not out on an industrial periphery but woven through the fabric of the city itself.

Before dawn breaks thousands of autonomous cleaning blades will squeak along the solar fields. Waves of mirrors ripple as they rotate to chase the changing light. A billion panels collected from all over the world. The batteries of Planet City are alive with fish and pink algae, as excess wind and solar pumps water through canals to high altitude holding lakes in the city's upper floors. Power is stored here as potential energy, rather than in resource intensive lithium batteries

Although wildly speculative, grounding imaginary worlds such as Planet City in the real science and technology of the present moment means we can begin to project ourselves into this future. Could we imagine living here? Fishing in the city's battery lakes, following the seasons up through the towers to collect honey with the planet city beekeepers, falling in love amongst the pink algae blooms before harvest. Planet city in the end is not a proposal, it is a provocation, a thought experiment that shows us that we don't have to trample so hard across the earth. If we can imagine these systems working at the scale of 10billion, then the only thing standing in the way of rewiring and consolidating our existing cities is ourselves, our own biases, blind-spots, politics and prejudices. In many ways each one of us has been living in a Planetary City all along. We have urbanized the planet

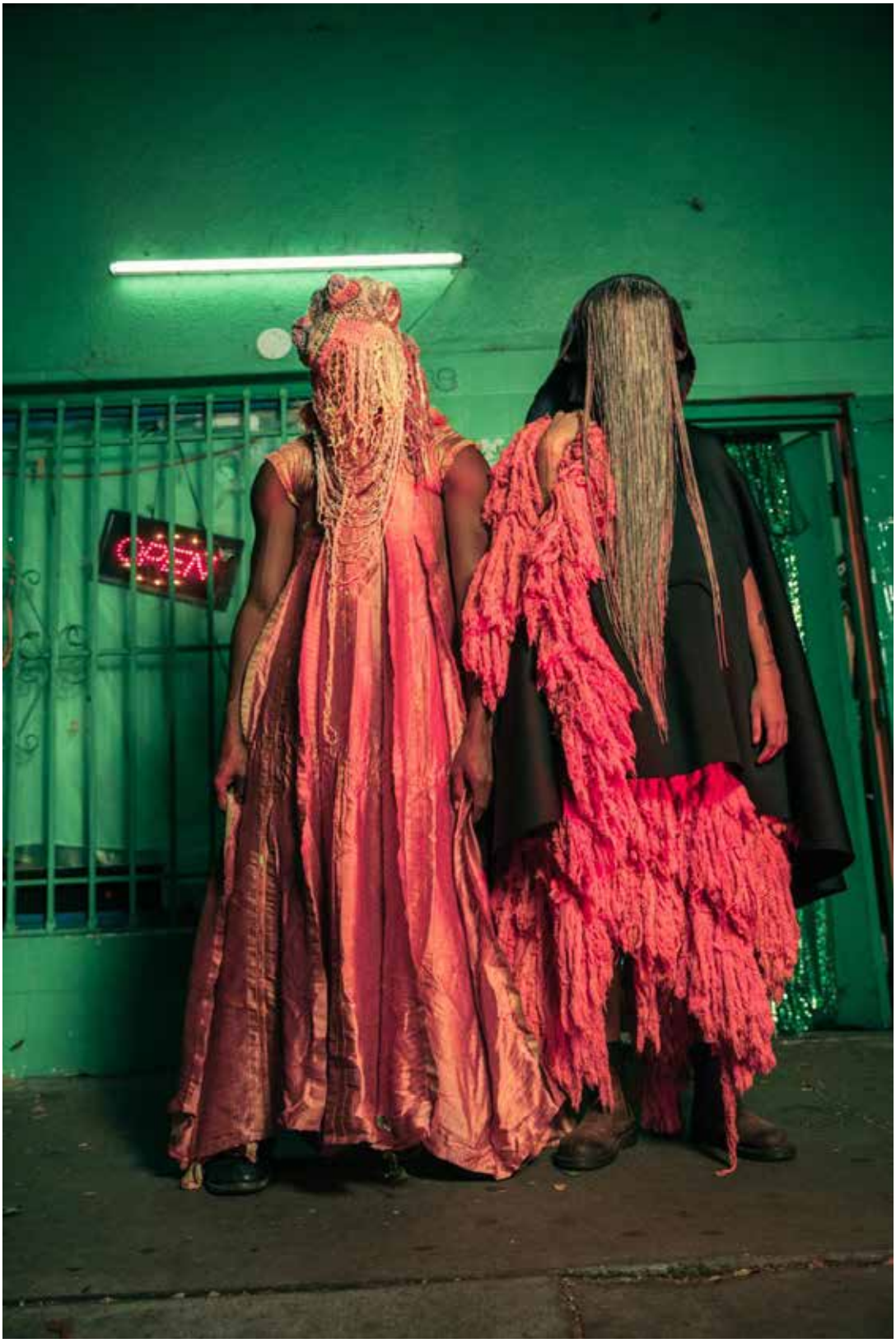
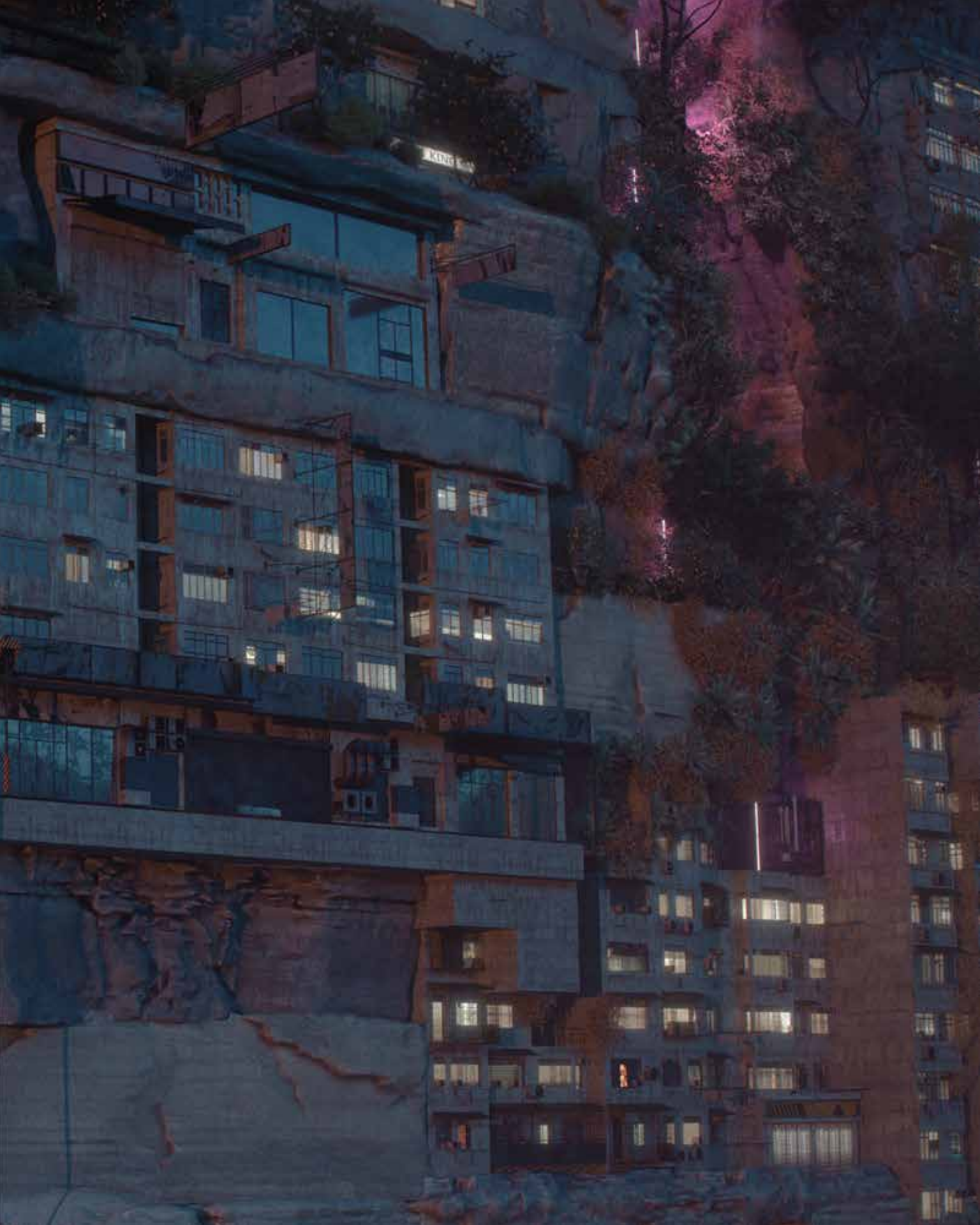


Figure 8. Planet City, costume stills, 2021

Figure 9. Planet City, film still, 2021



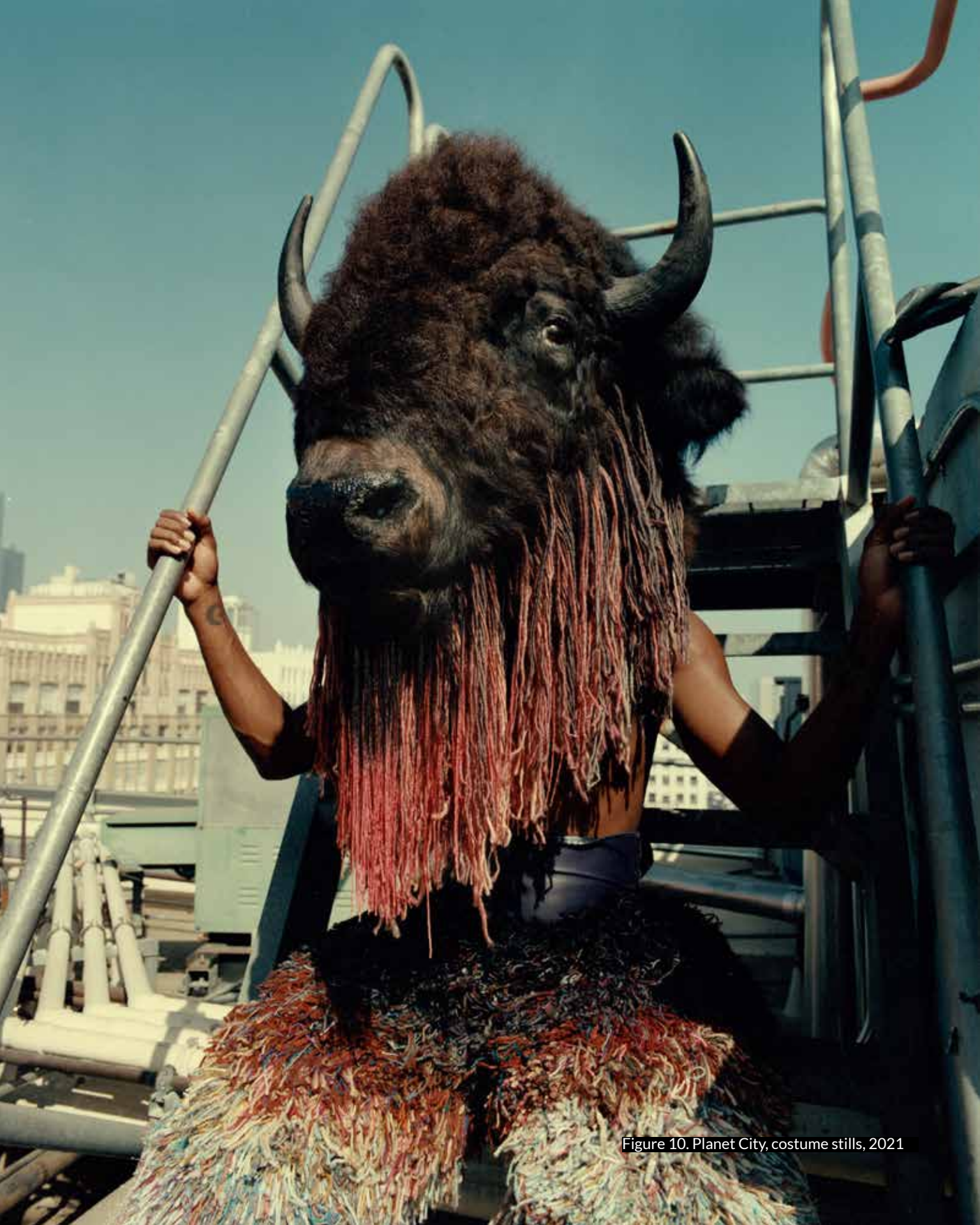


Figure 10. Planet City, costume stills, 2021

from the scale of the cell to the tectonic plate. Planet City is both entirely imaginary and already here. Simultaneously a challenging image of a possible tomorrow and an urgent illumination of the environmental challenges that are facing us today.

At the end of our wanderings our science fiction safari through this speculative city will finally return us to where we started, to look back on our own cities again but with new eyes. This journey has been a call to actively visualise our possible futures, imaginary worlds in which we can collectively shape where we all want to go next.

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The Company West Coast Costume Assistant Courtney Mitchell East Coast Costume Assistant Ela Erdogan
Costume Artists Holly McQuillian (Zero Waste Weavers), Aneesa Shami (High Altitude Bot Herder), Yeohlee Teng (Code Talker), Courtney Mitchell (Beekeeper), Ane Crabtree (Nomadic Worker, Algae Diver, Drone Shepard)
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