



Chapter 1
Kids built the post-scarcity society. They knew the world wasn't fair. Most people had very little while a few hoarded so much.

"Let's take care of each other," they thought. How do we build a society founded on equity? Was it even possible?

Climate change loomed on almost everyone's minds. They thought, "If we look at the big picture maybe we can find a way to fix this." Asteroid strikes, supervolcanoes - we should probably have a plan for those too.

"Let's go big or we won't have a home!" they shouted. The sky's the limit! "TO THE MOON!!!" they typed in all caps!

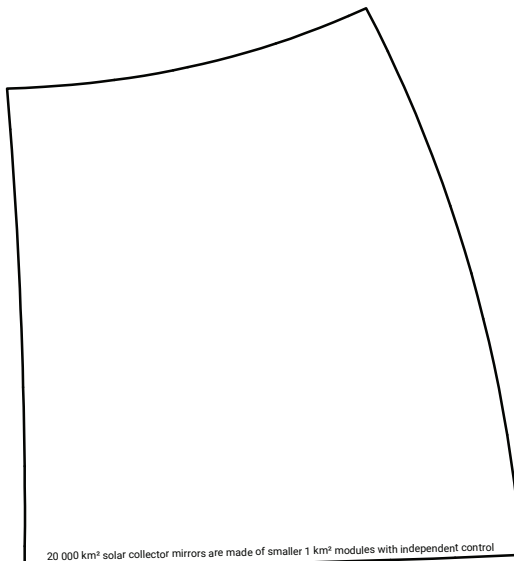
With their parent's permission they funded a blockchain smartcontract with Dogecoin. One hundred million kids pitched in \$10 each. Spacex and a team of space agencies had \$1 billion to design and build the *Sprout*. *#dearMoon* was planning a trip to the Moon anyway and delivered the *Sprout* on their way by in 2023, to everyone's delight.

The *Sprout* was 146 tonnes of hydrogen and the most beautiful self-replicating mining and manufacturing robot you have ever seen. A 3D printer that 3D prints itself out of aluminum and silicon it gathers below the surface of the Moon.

Kids around the world were having a blast, quite literally. They led and trained the mining robots from the comfort of their Earth homes through virtual reality headsets.

Thanks to *Minecraft*, skilled operators were trained, experienced and ready to go. Especially since the smartcontract meant they got paid well. Everyone's input is valuable when building the inclusive society of the future.

The robots and machines launched solar panels, mirrors and other materials into the Moon's orbit using a magnetic launch system similar to a maglev train but pointed straight up. This was much easier than launching it from Earth since the gravity is less on the Moon. The mines were hollowed out rings below the surface of the Moon, being careful to have a small footprint and not change how the Moon looks. [The hollowed rings were eventually made to hold spinning habitats themselves. Shielded by moonrock above.]



20 000 km² solar collector mirrors are made of smaller 1 km² modules with independent control

Chapter 2
In a massively multiplayer online collaboration, kids around the world imagined and designed the spaceships that could hold everyone in the world, called habitats. There were enough space lifeboats for 10 billion people or more - as many as were needed. They should be enjoyable places to spend time too.

They worked together and made a plan. The designs were open-sourced. Kids made decisions by consensus to form new governments that would help take care of these new places.

The United Nations Outer Space Treaty meant that society could leave behind many of our dated traditions, including sovereign countries.

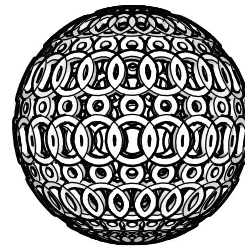
The effort was known to some as the *post-nation pluralist province of humankind and friends* :). Each habitat was more like a small city. Early designers, miners and makers built the first blockchain direct democracy to make decisions by. Consensus meant that everyone needed to consent to a proposal for it to be adopted. Instead of division, the approach led to deeper discussion and better questions. Consensus is central to inclusivity and takes time. Fortunately, there is always time.

Moon conservation areas were formed, one example was the Sea of Tranquility Lunar Preserve. Still, cases were made by many that if we are going to mine for resources it is better to do so on the Moon and to conserve as much "living Earth" as possible.

The first 20 000 square kilometer solar collector was completed in 24 months. It was a good thing it had nice people (kids!) that owned it with a secure and peaceful democratic system. 6 billion kilowatts! Such power and heat! WOW! Enough to take care of an asteroid that might come our way.

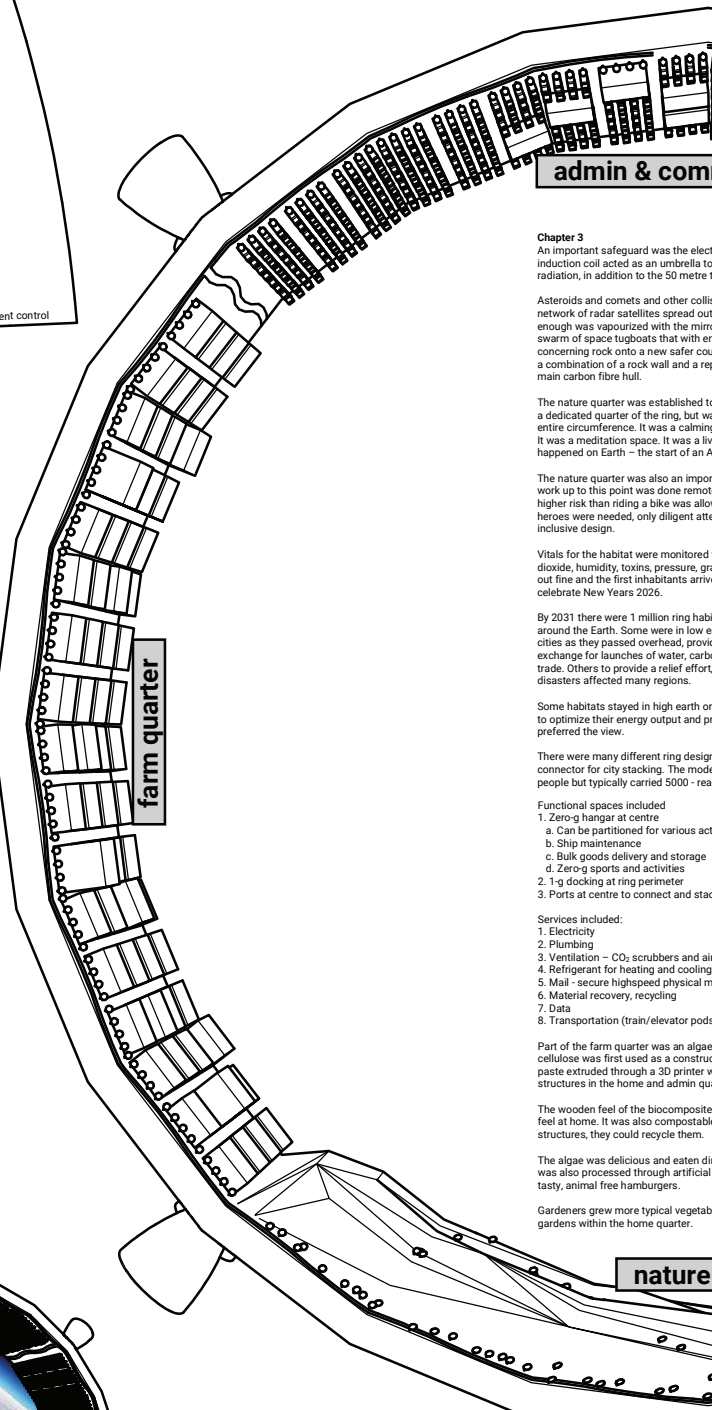
The enormous solar collector and mirror array sent energy back to both the Earth and the Moon. Stations there were able to make renewable fuel and launch materials to build the first habitat. Carbon and organic elements came from Earth. Aluminum, silicon, iron and water from the Moon. From water and energy they could make hydrogen for fuel and oxygen for breathing.

The habitat was set up in 4 quarters:
1. Farm
2. Nature
3. Home
4. Admin & Commerce



how to build for everyone

a science fiction co



Chapter 3
An important safeguard was the electromagnetic induction coil acted as an umbrella to radiation, in addition to the 50 metre thick

Asteroids and comets and other collisions network of radar satellites spread out enough was vaporized with the mirror swarm of space tugboats that with enough concerning rock onto a new safer course a combination of a rock wall and a rep main carbon fibre hull.

The nature quarter was established to a dedicated quarter of the ring, but was entire circumference. It was a calming. It was a meditation space. It was a living happened on Earth - the start of an An

The nature quarter was also an important work up to this point was done remote higher risk than riding a bike was allowed heroes were needed, only diligent attention inclusive design.

Vitals for the habitat were monitored for dioxide, humidity, toxins, pressure, gra out fine and the first inhabitants arrive celebrate New Years 2026.

By 2031 there were 1 million ring habitats around the Earth. Some were in low earth cities as they passed overhead, providing exchange for launches of water, carbon trade. Others to provide a relief effort, disasters affected many regions.

Some habitats stayed in high earth orbit to optimize their energy output and preferred the view.

There were many different ring designs connector for city stacking. The model people but typically carried 5000 - reach

Functional spaces included
1. Zero-g hangar at centre
a. Can be partitioned for various activities
b. Ship maintenance
c. Bulk goods delivery and storage
d. Zero-g sports and activities
2. 1-g docking at ring perimeter
3. Ports at centre to connect and stack

Services included:
1. Electricity
2. Plumbing
3. Ventilation - CO₂ scrubbers and air
4. Refrigerant for heating and cooling
5. Mail - secure highspeed physical mail
6. Material recovery, recycling
7. Data
8. Transportation (train/elevator pods)

Part of the farm quarter was an algae cellulose was first used as a construction paste extruded through a 3D printer with structures in the home and admin quarters

The wooden feel of the biocomposite structures, they could recycle them.

The algae was delicious and eaten directly was also processed through artificial tasty, animal free hamburgers.

Gardeners grew more typical vegetable gardens within the home quarter.

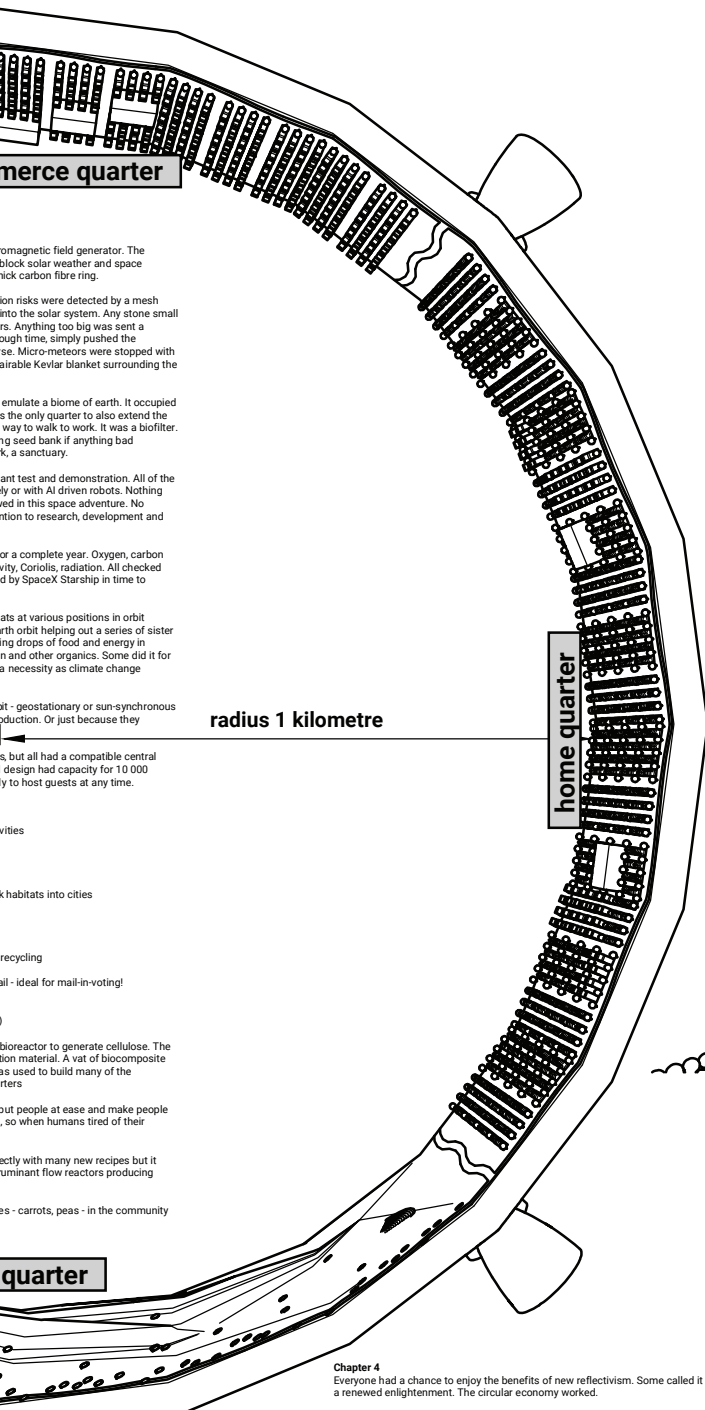
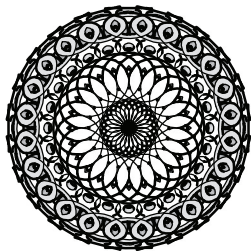
nature



1 revolution per mi

a spaceship in the world

colouring adventure



omagnetic field generator. The
block solar weather and space
nick carbon fibre ring.

ion risks were detected by a mesh
into the solar system. Any stone small
rs. Anything too big was sent a
ough time, simply pushed the
se. Micro-meteors were stopped with
sairable Kevlar blanket surrounding the

emulate a biome of earth. It occupied
s the only quarter to also extend the
way to walk to work. It was a biofilter.
ng seed bank if anything bad
k, a sanctuary.

ant test and demonstration. All of the
ly or with AI driven robots. Nothing
ved in this space adventure. No
ention to research, development and

or a complete year. Oxygen, carbon
vity, Coriolis, radiation. All checked
by SpaceX Starship in time to

ats at various positions in orbit
rth orbit helping out a series of sister
ng drops of food and energy in
in and other organics. Some did it for
a necessity as climate change

at - geostationary or sun-synchronous
duction. Or just because they

radius 1 kilometre

s, but all had a compatible central
design had capacity for 10 000
y to host guests at any time.

vities

k habitats into cities

recycling

ail - ideal for mail-in-voting!

bioreactor to generate cellulose. The
ion material. A vat of biocomposite
as used to build many of the
rters

out people at ease and make people
so when humans tired of their

ectly with many new recipes but it
uminant flow reactors producing

es - carrots, peas - in the community

quarter

Chapter 4

Everyone had a chance to enjoy the benefits of new reflectivism. Some called it a renewed enlightenment. The circular economy worked.

With an exponentially growing renewable solar energy supply, the habitats had plentiful energy and food. Exports to Earth and trade with other habitats meant that a new solar-based crypto-physical currency was established which quickly became the most valuable form of credit. No taxes were ever paid. Everyone had access to free healthcare, education and housing. At the same time, no-one was ever short of money as everyone was paid an *equity dividend*, directly into their accounts.

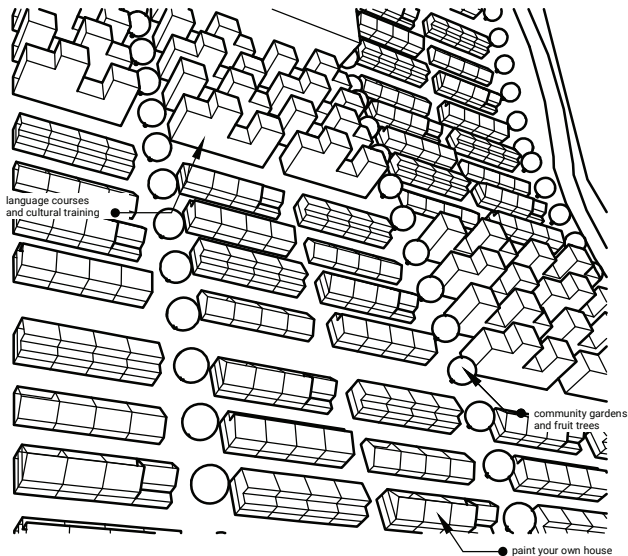
Kid-citizens celebrated the democratic process and worked to improve it. The invention of secure, highspeed physical mail piped directly to your home offered many advantages over blockchain. Citizens conveniently sent an auditable, paper ballot through the tube system and voilà - a tyrannical leadership dethroned before lunchtime!

Animals other than humans who consented to residence in an orbital habitat (including horses, dogs and cats) lived among us in the sky. They were each provided with stylish robotic pet-diapers to take care of any droppings automatically - sterilizing, composting and returning nutrient rich soil to a nearby garden.

1 g was made a universal human right.

Habitats had everything you would expect: day and night, 4 seasons, rain, even wind. But habitats weren't Earth. Stardust holidays to the space cottage were so much better knowing you had a safe and healthy Earth to return home to.

We still wondered about other stars. Not wanting to intrude, we listened and we waited for an invitation. Do you think our celestial neighbours like potlucks?



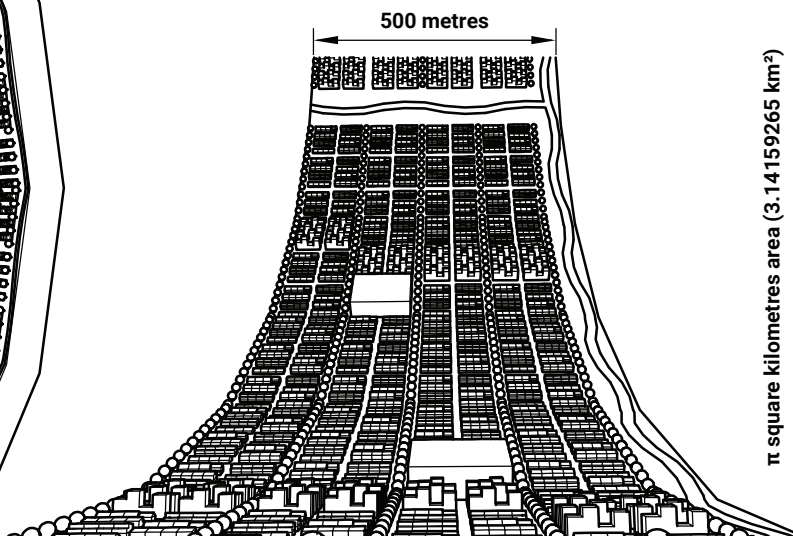
Craft time!

Trim the edge off this sheet. Design your habitat. Tape it into a ring.

Other materials:

1. globe
2. aluminum foil or mirror
3. a smaller ball for the Moon
4. a flashlight

Share your creation! #howtobuildaspaceship



π square kilometres area (3.14159265 km²)

minute for 1 gravity, g

