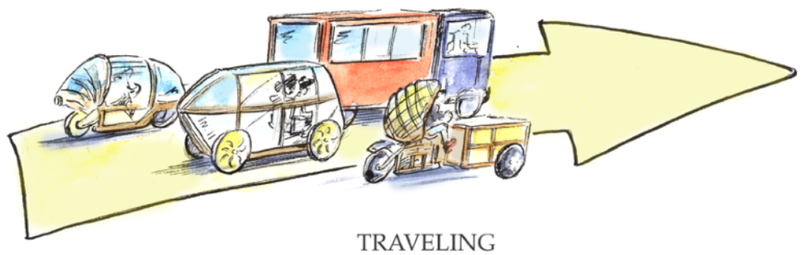
SOLARPUNK NOMADS

Artwork, ideas and storytelling by Dustin Jacobus
Ideas, concepts and technical description based on work by Eric Hunting

MEET THE NOMADS

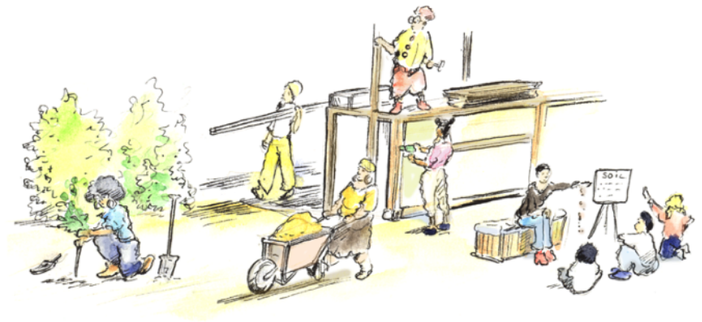
After yet another climate disaster a group of friends with little hope for better times ahead join forces. With a wide variety of interests, expertise and knowledge, together they form a solid team. Their collective goal? Traveling and helping communities. They aim to break away from the current system, building aligned to a cooperative-commons model where community goods are produced on the basis of communal duty and open reciprocity. They will join an ever-growing tribe of Nomads.





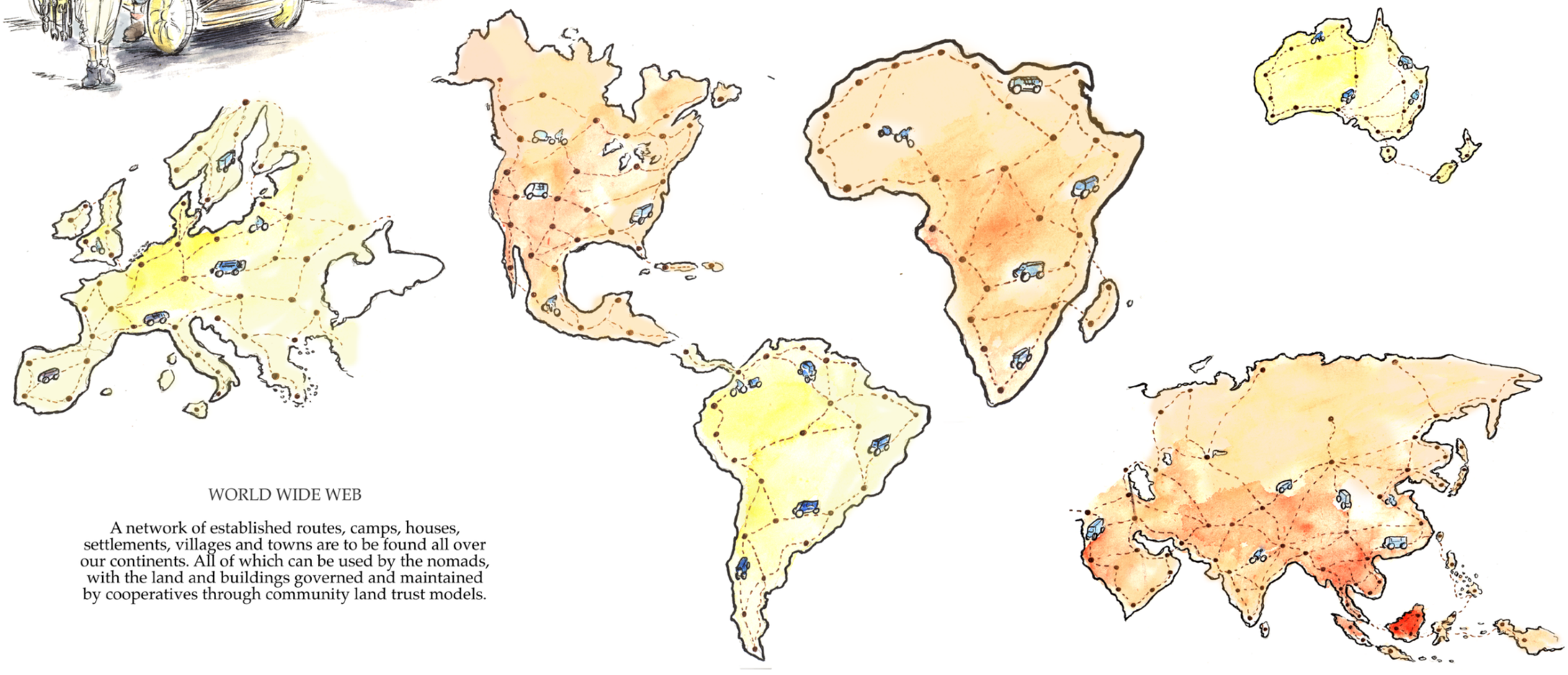
TRAVELING

They take pride in powering their vehicles with renewable energies, traveling long distances sustainably.



BUILDING RESILIENT COMMUNITIES

The new nomads help building houses, plant trees, implement permaculture practices, set up workshops and many other beneficial communal projects.



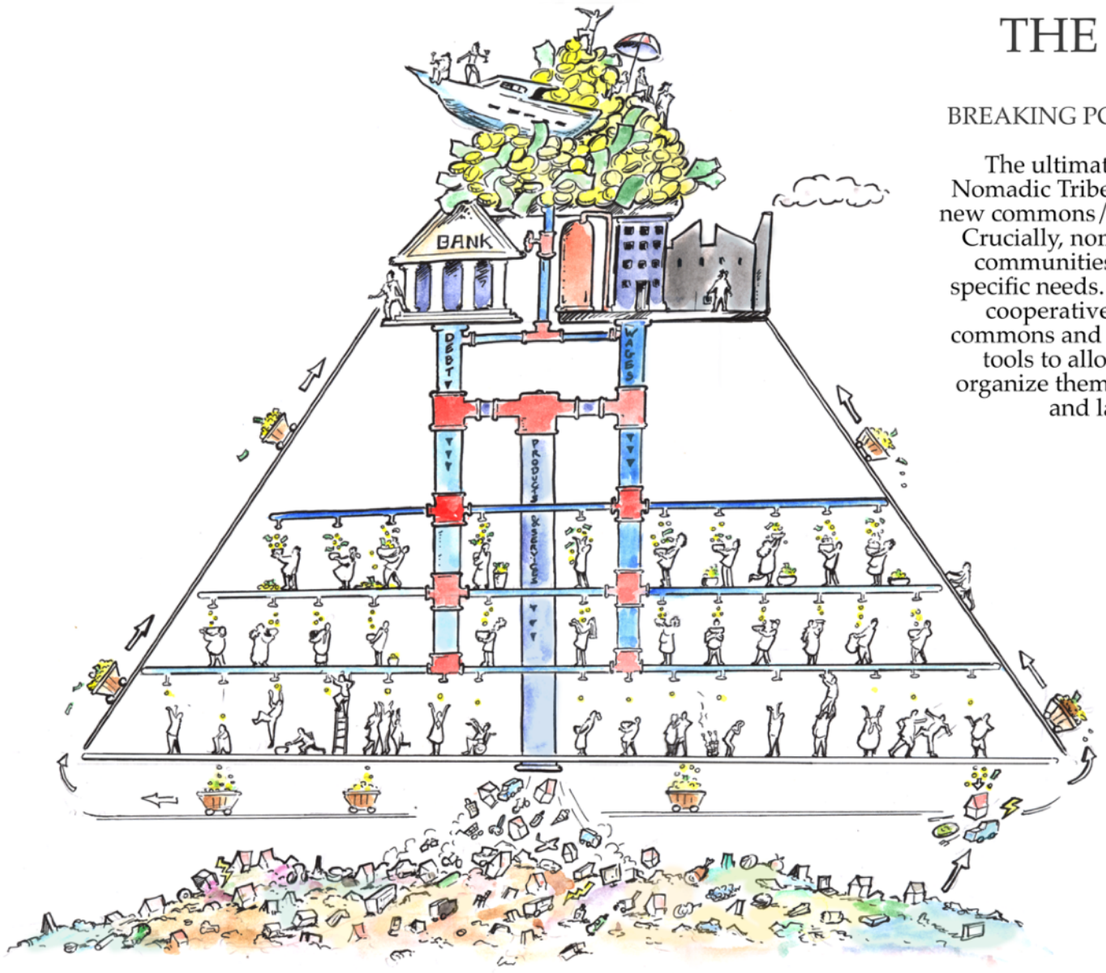
WORLD WIDE WEB

A network of established routes, camps, houses, settlements, villages and towns are to be found all over our continents. All of which can be used by the nomads, with the land and buildings governed and maintained by cooperatives through community land trust models.

THE GOAL

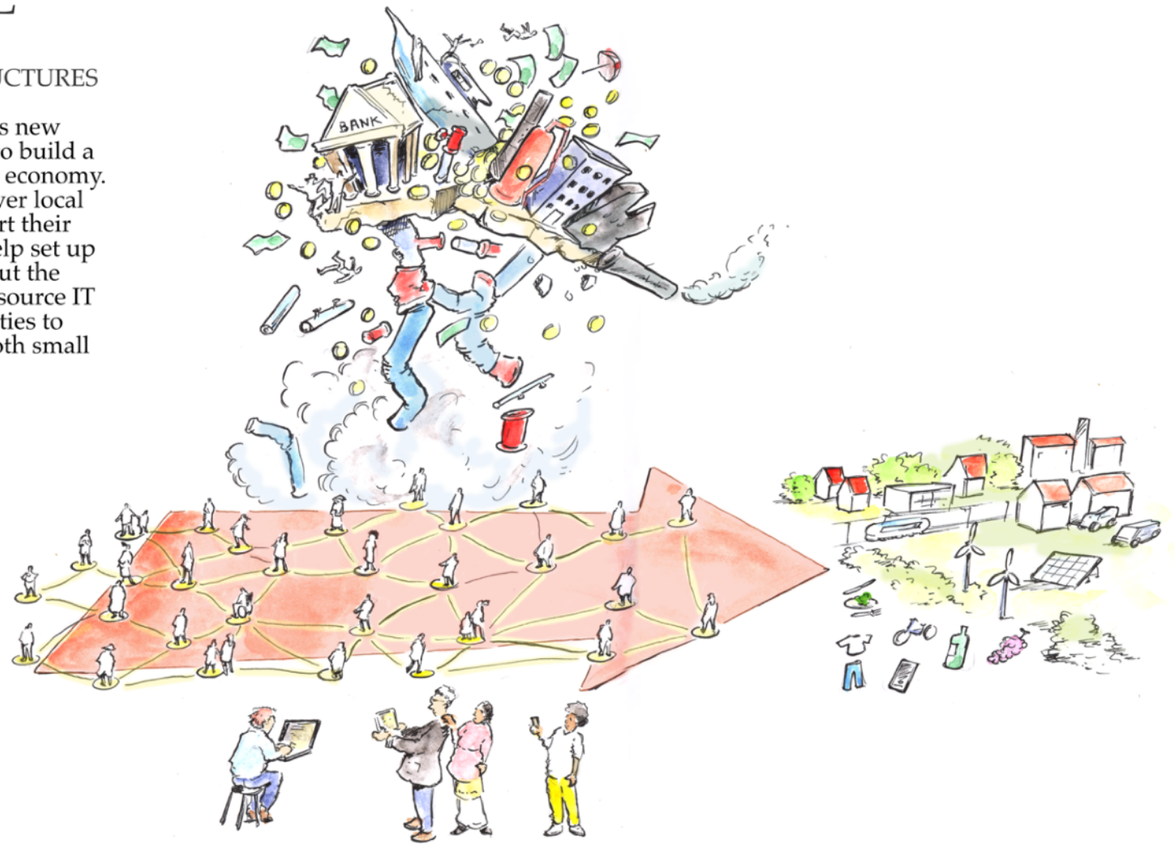
BREAKING POWER STRUCTURES

The ultimate goal of this new Nomadic Tribe is helping to build a new commons/cooperative economy. Crucially, nomads empower local communities and support their specific needs. They can help set up cooperatives, teach about the commons and share open-source IT tools to allow communities to organize themselves on both small and larger scales.



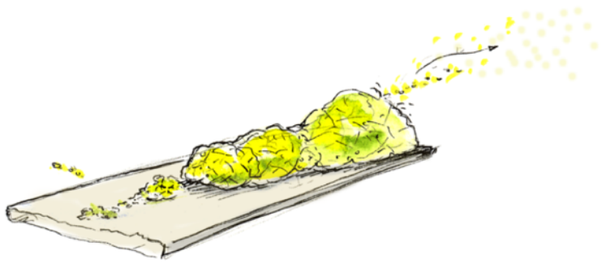
THE OLD MODEL

The old market economy persisted for too long and ended up creating huge inequalities. It benefited the billionaire, elitist class, whilst parasitizing the majority of the people. The figure shows the construction they needed to maintain this status quo. They controlled the banks, allowing them to create both money and debt. People were forced into debt when buying houses and dealing with higher rents, necessitating everyone earn a wage. Large enterprises were another vehicle for wealth creation, and this was once again under control of the capitalist elite. As the figure reflects, the real power of the people as a collective was crushed. They were isolated, pitted against one another, dependent on this inhumane system.



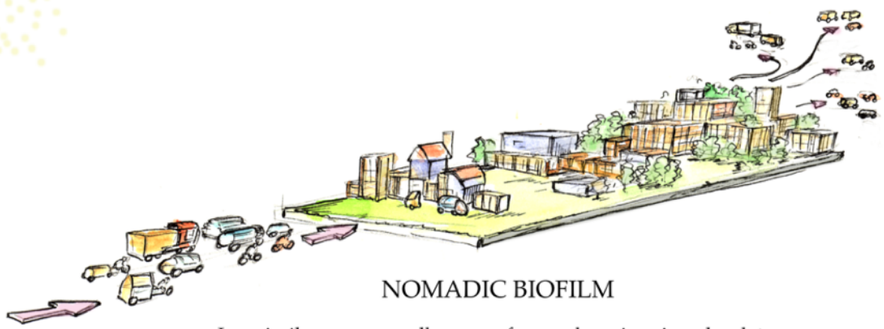
TOOLS TO ORGANIZE

The key this was to install new organizational solutions that allowed people to slowly gain confidence in the newly designed systems. More and more people walked away from the old system. People that before were isolated started to gather and organize themselves to produce the goods and services they needed. Smaller communities could organize directly whilst larger communities and global networks utilized IT tools to coordinate. These software and applications were similar to the former ERP (enterprise resource planning) tools. They use open source, decentralized accounting tools and graph databases to visualize complex processes. They made use of AI and the semantic web (Web 3.0) to get new insights about their highest priority needs. By abandoning the old system, soon the money of the rich became worthless, and their fortresses tumbled down. Contrasting to the old system, this new economic path, founded on communal duty and reciprocity, allowed people to regain control and act cooperatively rather than individually.



MICROBIC BIOFILM

The movement spreads and grows in a similar way to a microbial biofilm, transitioning through different stages. First, there is the initial microbial attachment, followed by an irreversible adherence. Later the biofilm matures and finally disperses, with new microbes spreading out in search of new food sources.



NOMADIC BIOFILM

In a similar way a small group of nomads arrives in a desolate, impoverished town. The core team helps the residents form a strong resilient community. Nomads work with the community to co-create new energy, residential and agricultural solutions, helping install cooperative systems that regenerate our world. Soon the nomad philosophy becomes valued by these communities and their presence is irreversible.



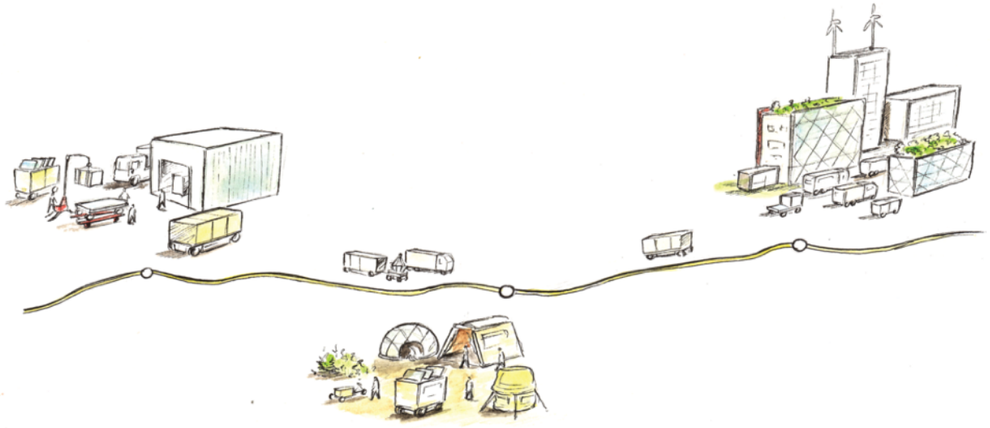
TIME TO MOVE

The new commons/cooperative economy matures and acts in favour of all its residents. The old power structures vanish, and eventually new groups of nomads arise and spread out on their own journeys.

DIFFERENT WAYS OF TRANSPORT

WORKSHOPS

They have production facilities and workshops that can provide goods, foods and even carry out repairs if they need to fix their vehicles.

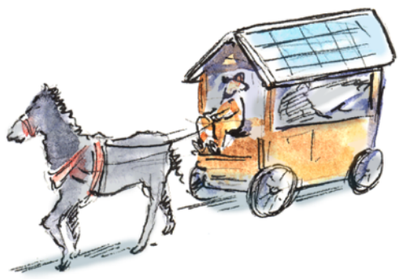


FROM LAND TO CITY

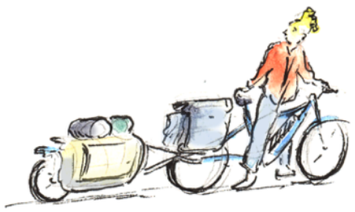
The nomad's shelters differ in size and function. Some are simple plots of land with basic services whilst others consist of entire well-stocked cities.

ALONG THE ROAD

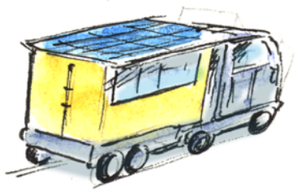
The nomads have an enormous network of places where they can spend the night, stay for a couple of weeks, remain for a season or even reside permanently.



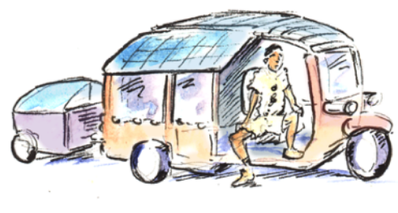
horse carriages



Long distance bicycles



Converted electric vans and trucks

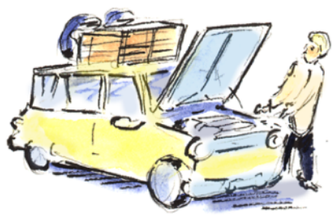


The electrical Tuk-tuk

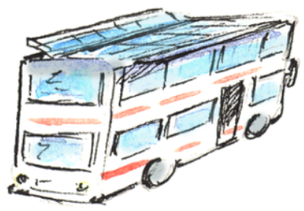


Electric motorbike

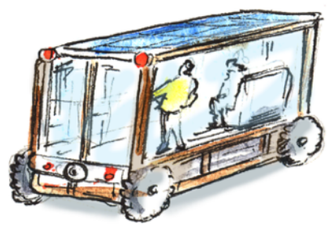
A huge range of vehicles are used, some more peculiar than others.



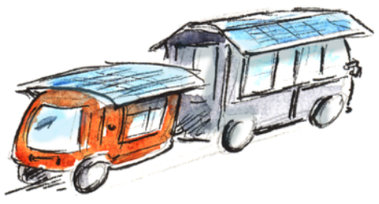
(Converted) electric car



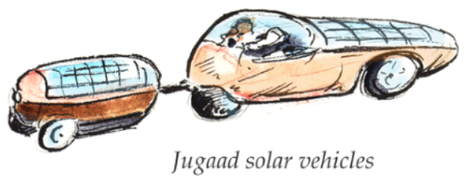
Modular electrical bus



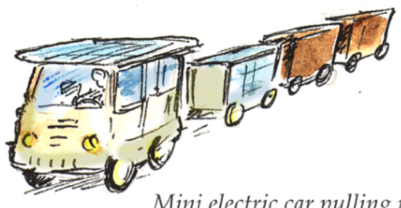
High tech self driving platform cars



Solar campers and mobile homes



Jugaad solar vehicles



Mini electric car pulling mobile furnitecture

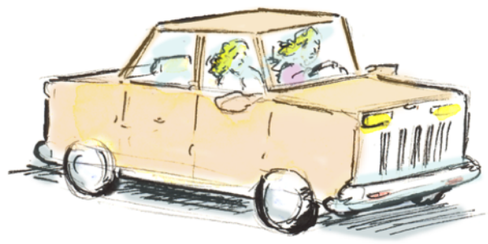


Backpack nomad

VEHICLES: production

VEHICLE WORKSHOPS

An informal economy arose. Custom-made vehicles are designed to replace the once mass-produced automobile. Old gasoline fueled cars can be converted into environmentally friendly vehicles. Old harbours utilize their abundance of scrap resources within a multitude of vehicle workshops. Some nomads gather old vehicles and help convert them into solar vehicles of various size and complexity.

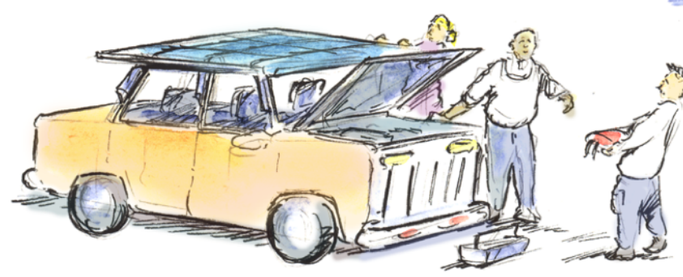


RETROFITTING OLD CARS

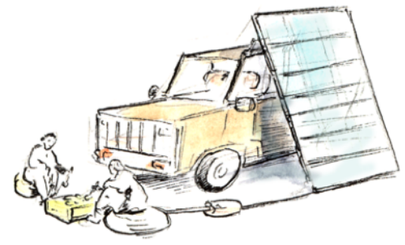
We entered an era of enormous creative potential. New vehicles were created by skilled technicians previously working for large manufacturers and automobile repair shops.

Retrofitting old cars became popular business, with many workers finding enjoyment in helping transform old cars with electrical power.

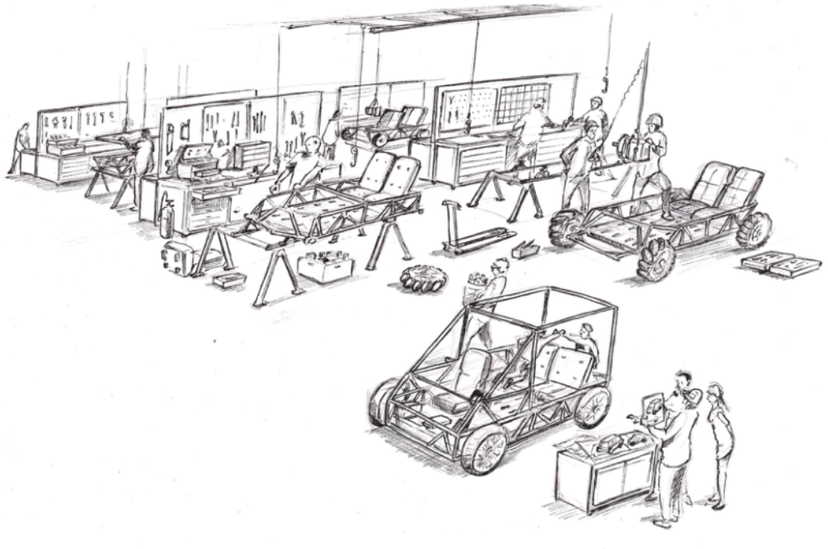
Sometimes they even enforced car roofs and welded bars onto the chassis to help install solar panels.



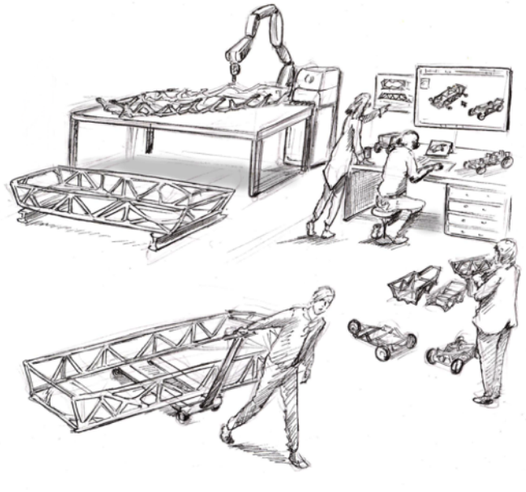




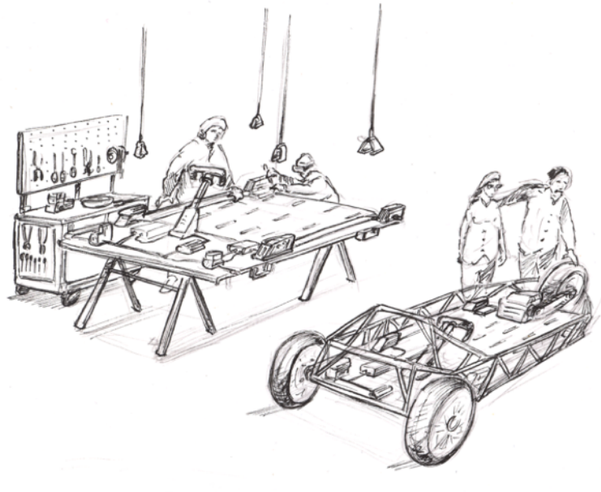
This older vehicle and many others like it use a removable and deployable solar panel.



A typical, cooperatively owned car workshop

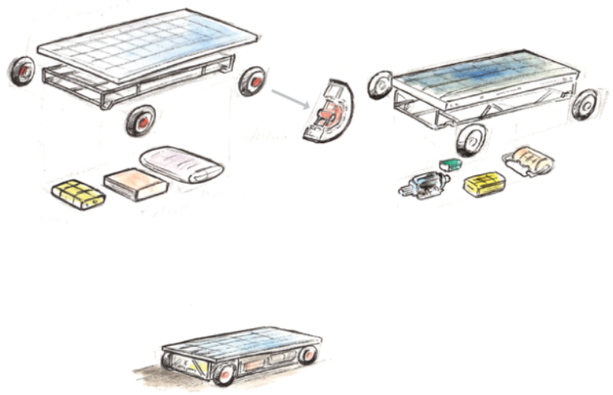


3D-printing chassis



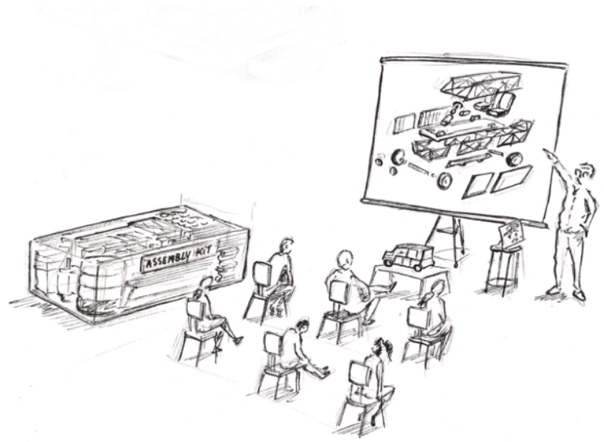
Custom made electric car design

VEHICLES: maker culture



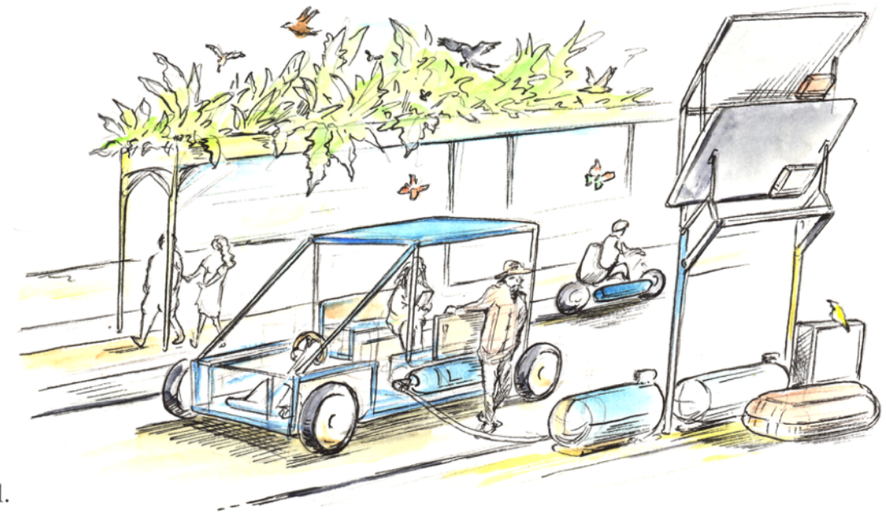
CREATIVITY

An outstanding example of the creativity of some Solar"punk" Nomads is this driverless vehicle. The old teardrop caravan design revives itself here. It is built on top of a space frame chassis, has in-wheel electric motors, hydrogen fuel-cells and hydrogen storage. A brilliantly odd mix of high- and low-tech solutions.



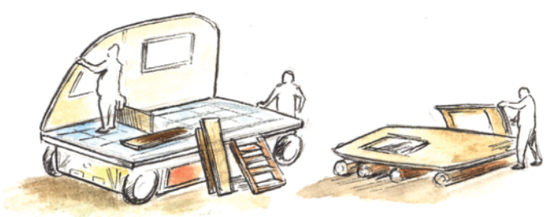
NE W SCHOOLS

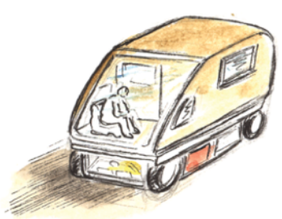
Together with this new maker culture new schools emerged. Many young people gained an interest in practical skills, wanting to become builders and makers. In all cooperatives and nomadic tribes, learning and education are of paramount importance. This led to classes, like this vehicle design course, to spring up all over the place.

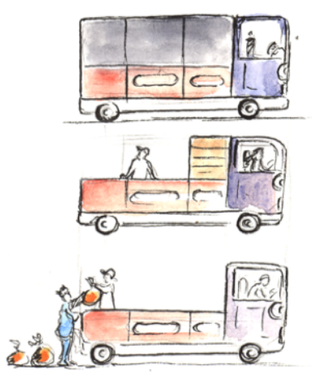


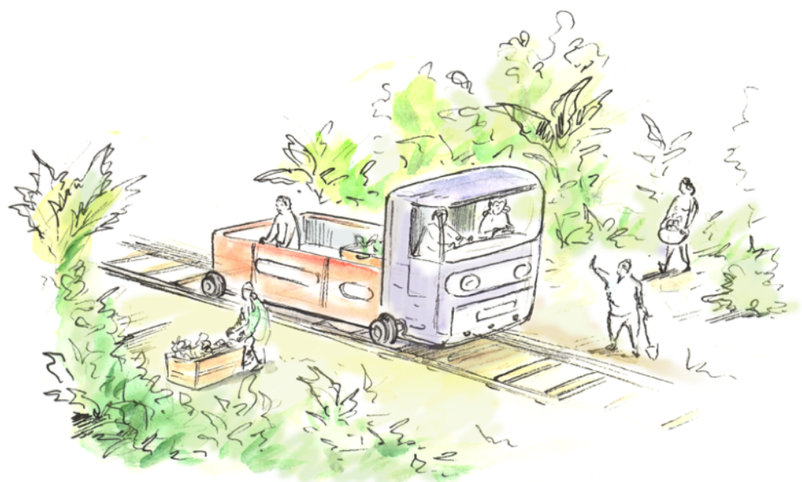
PRESSED AIR

There is a wide range of vehicles being used by nomads. Whilst many nomads use electric vehicles, alternative power sources can also be seen. These include hydrogen vehicles and air compression systems that use high air pressure to create propulsion.









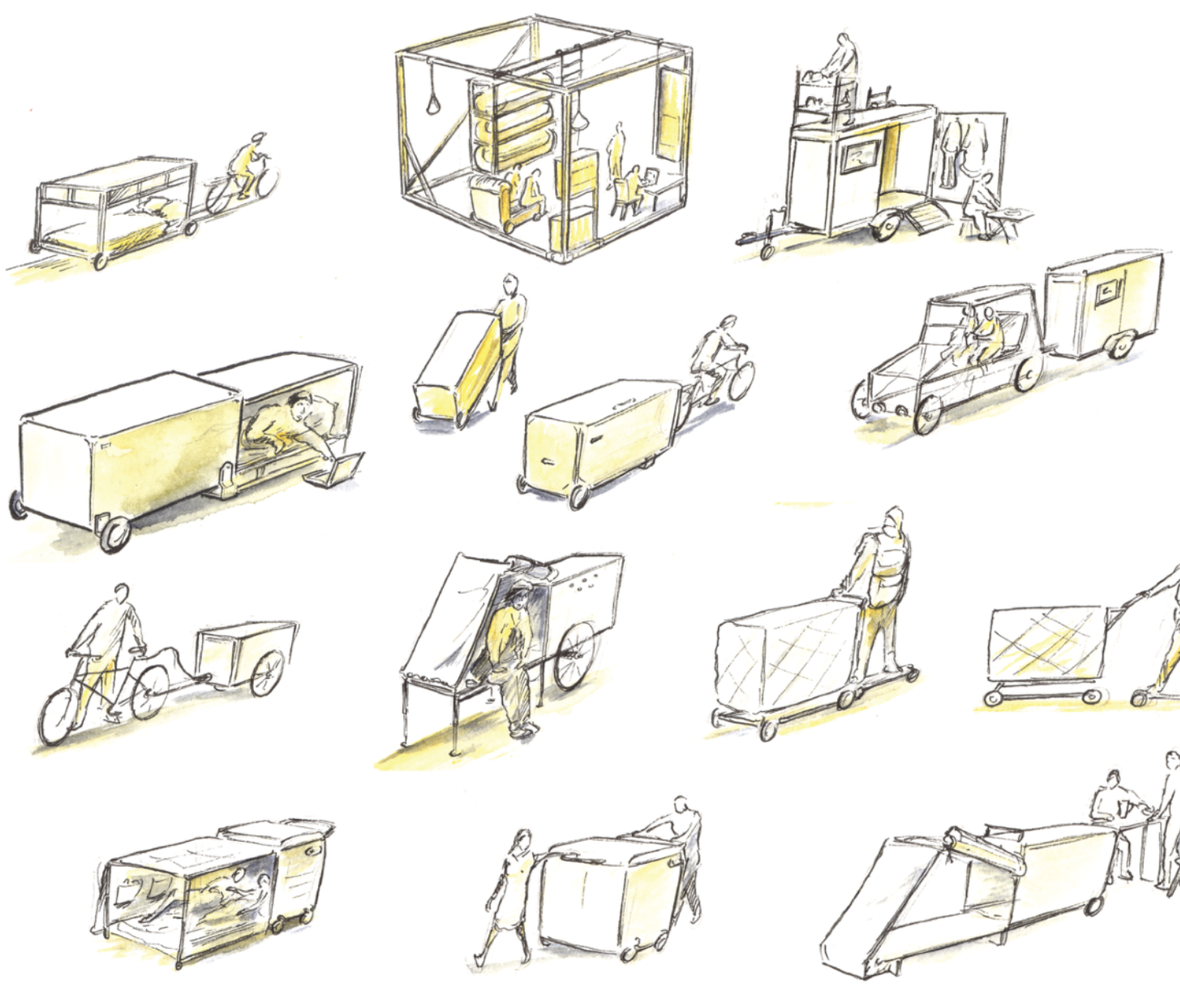
RAILS

Nomadic tribes, accustomed to owning their electric cars, often opt for personal vehicles. However, over time more and more start to use rail systems. This is partly because some roads are being demolished to make room for nature and partly because the rail system is much more efficient. You can see converted cars, converted old trains, and new rail vehicles. It won't be long before we see a transition to a global rail system.

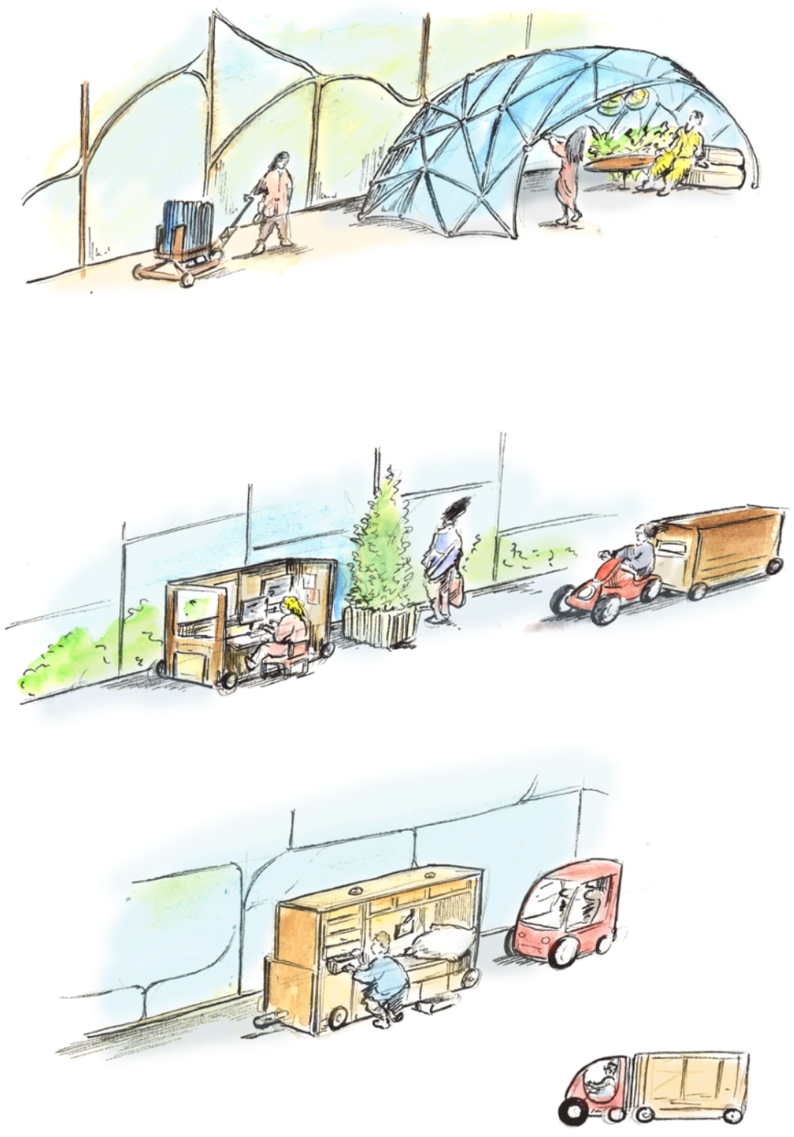
VEHICLES: furnitecture

ARCHITECTURE OR FURNITURE?

There is a significant group of solarpunk nomads that travel light. They use small electric vehicles, often towing one or more container-like boxes. The boxes, which are mostly man-made designs, are called furnitecture. They are a combination of architecture and furniture. These boxes can transform into furniture and be used as small, independent living spaces. Some may only be used in large buildings since they offer protection from the weather.



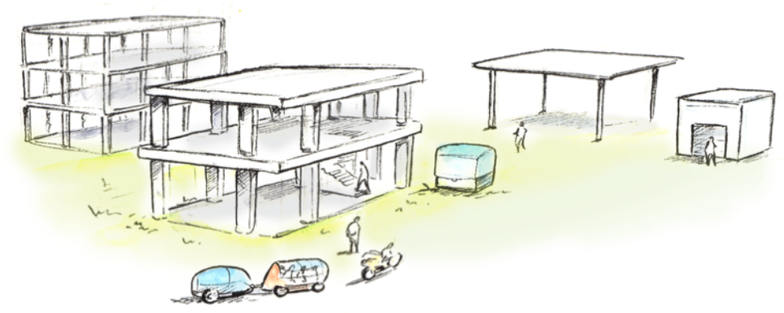
A variety of furnitecture can be used on site. Some designs are very simple, whilst others incorporate high-tech gadgets.

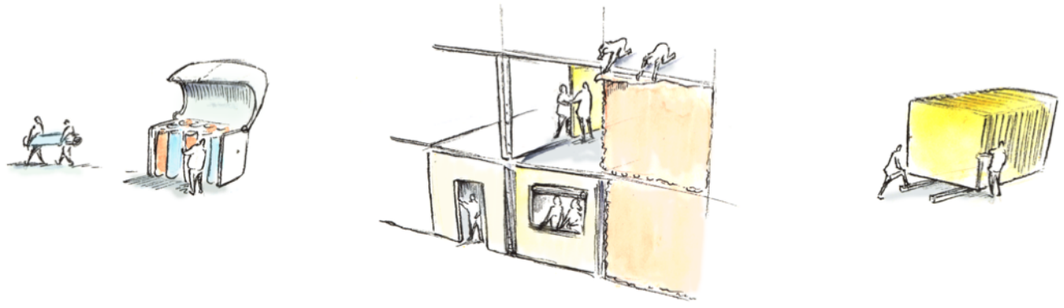


These nomadic travelers rely heavily on communal infrastructure, which often takes the form of a big open structure. With their lightweight vehicles they can drive right in and set themselves up in a short amount of time.

PLACES: from building to superstructure

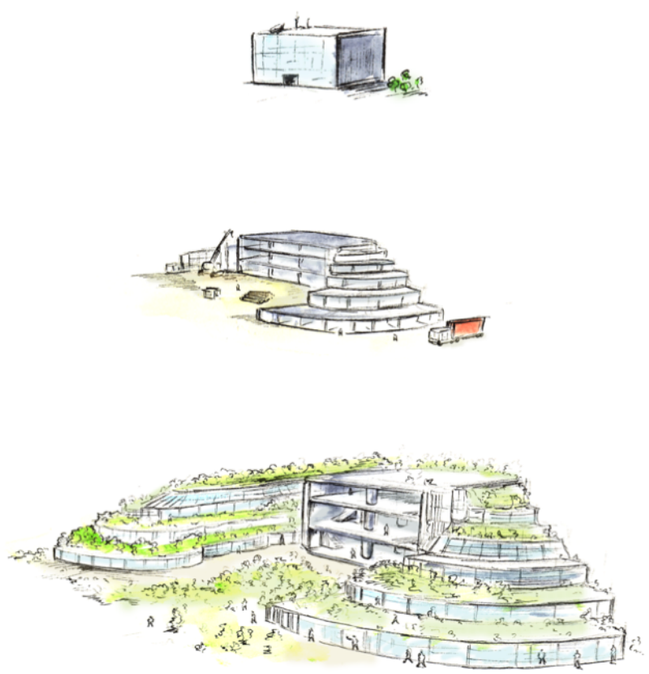
A growing number of historic properties have been left vacant since the previous system began to fall apart. The nomads quickly took advantage of this. It is a common practice to strip these buildings down, with the basic skeletal structure often providing sufficient accommodation for passing nomadic groups. Some nomads prefer to upgrade the building to a next level. These sites become permanent dwellings with numerous amenities. There are even places like old industrial campuses that have been turned into superstructures.





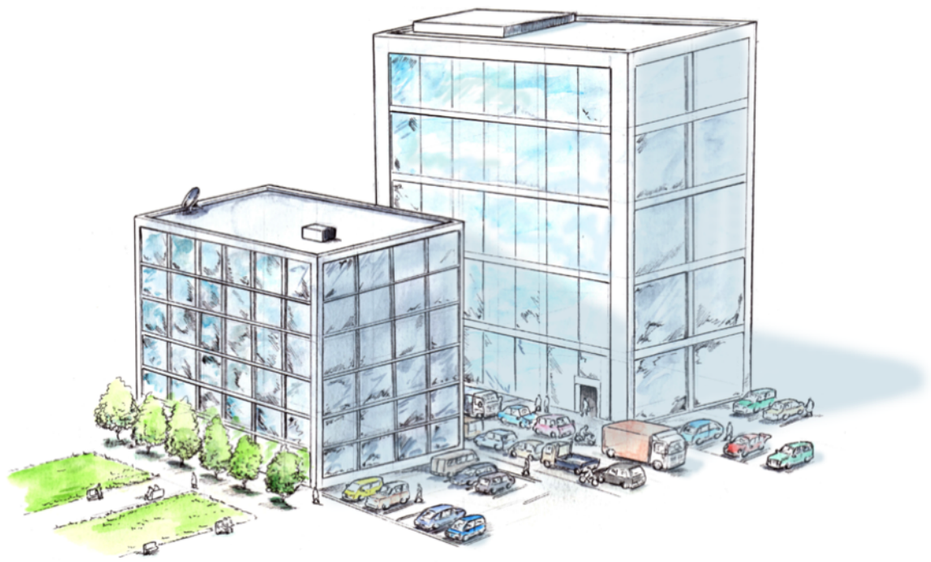
COMING AND GOING

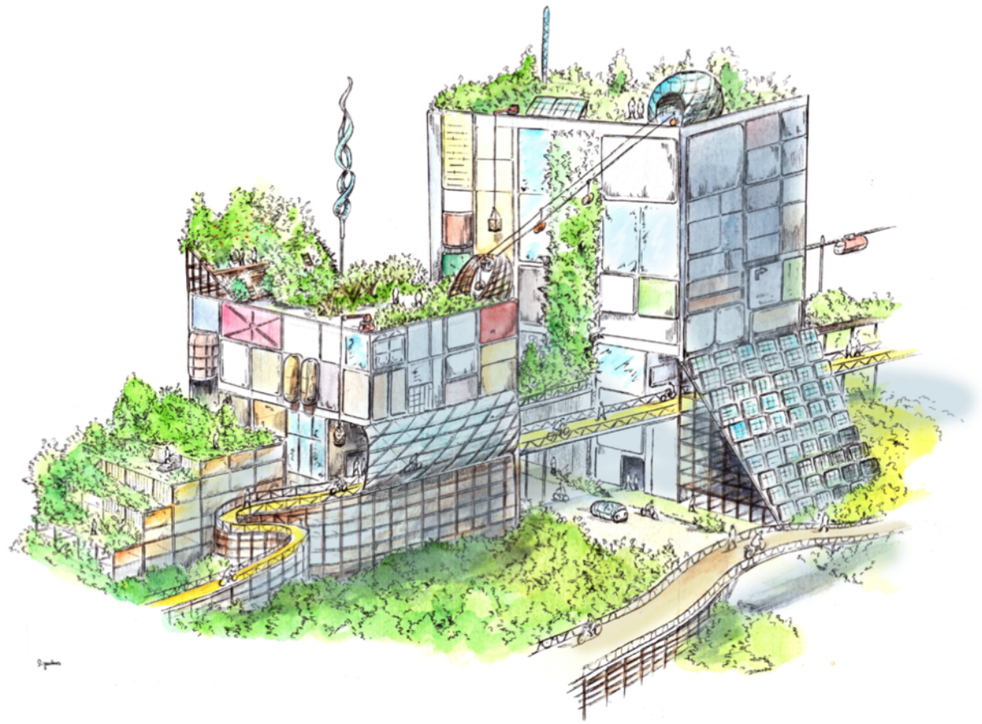
The nomads store their supplies in lockable boxes, using these materials to build temporary camps.



SUPERSTRUCTURES

An old corporate HQ is transformed into a terraced superstructure.



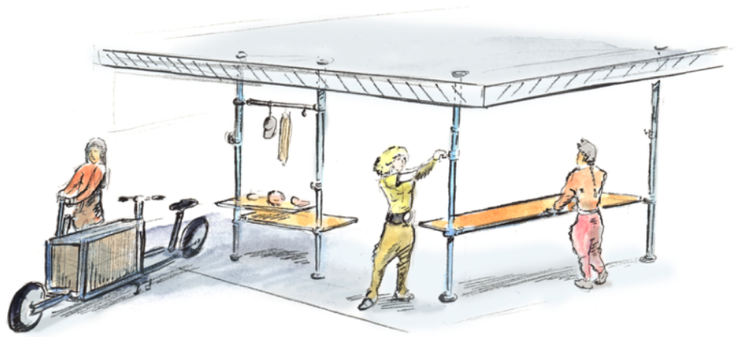


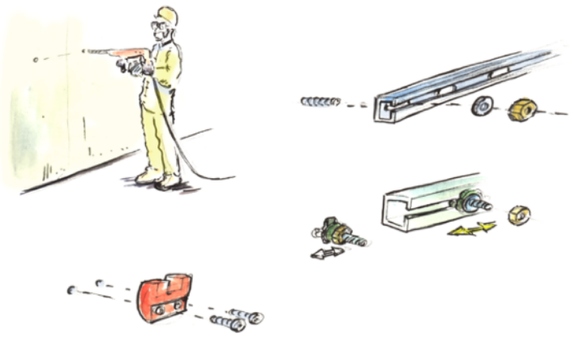
RETROFIT

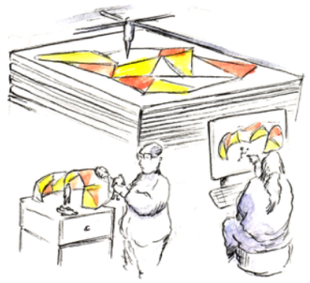
An office being retrofitted - before and after

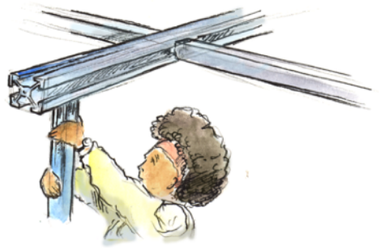
PLACES: old offices

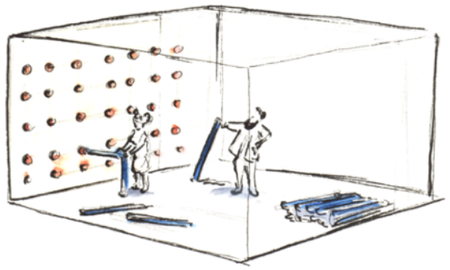
Although it requires special approaches to use these giant open spaces, nomads are very good at remodeling such sites. The core strategy focusses on constructing small private places within the larger spaces. Some are shown here.

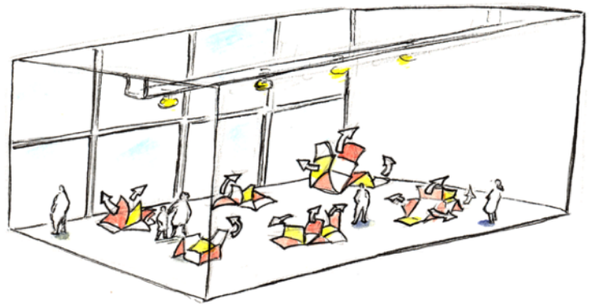












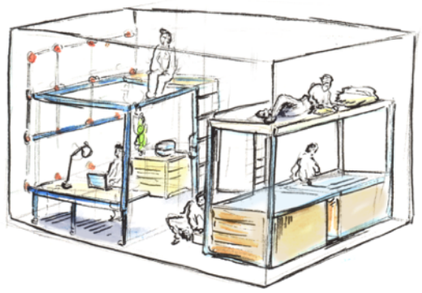
BEAMS, JACK-POSTS, T-SLOTS

Jack-posts and all kinds of building materials are used to make furniture and small rooms spring to life quickly.



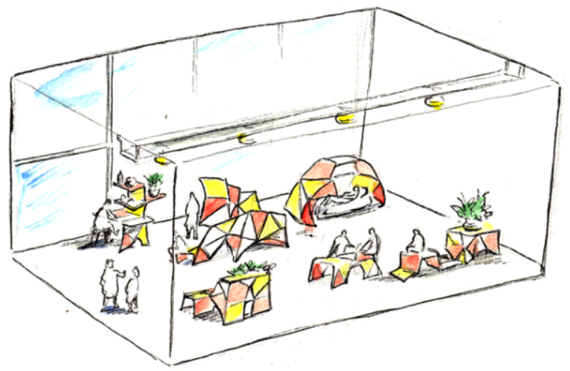
FESTIVALS, FAIRS, EXHIBITIONS

Nomads draw on past experiences creating fairs, festivals, and cultural events, setting up similar stages and display booths rapidly within these new environments.



WALL CLIMBING GRIPS

Nomads use kits to quickly build small spaces within larger rooms. They use 3D-printed blocks which act like climbing wall grips and install secure fixtures.



ORIGAMI FURNITURE

Some groups have turned to origami. They use high quality fabrics and specially designed folding patterns to produce lightweight furniture that can be easily transported and stored. In minutes they can turn an entire office into a comfy community village.

RECYCLING

Nomads are excellent recyclers. They have specialized teams that travel to villages and industrial areas in search of reusable materials.



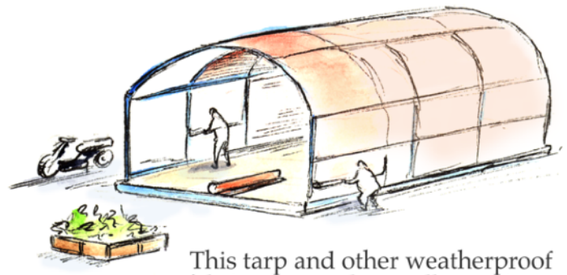
RECYCLING

Two nomads go to a former bank and dismantle high quality windows.

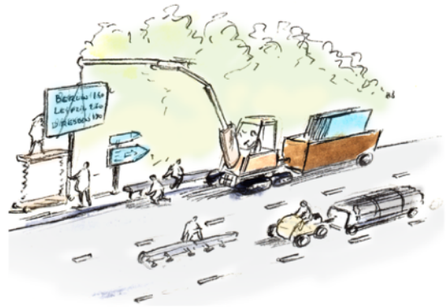




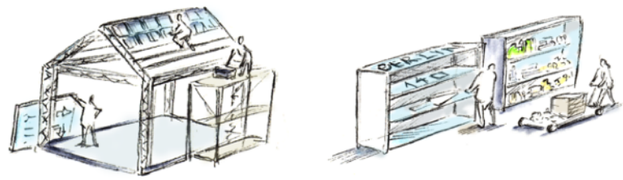
Plastic tarps from old trucks are collected.



This tarp and other weatherproof fabrics are used as wall coverings.



Along the highway many useful materials such as metal signs and roadside billboard fabrics can be found.

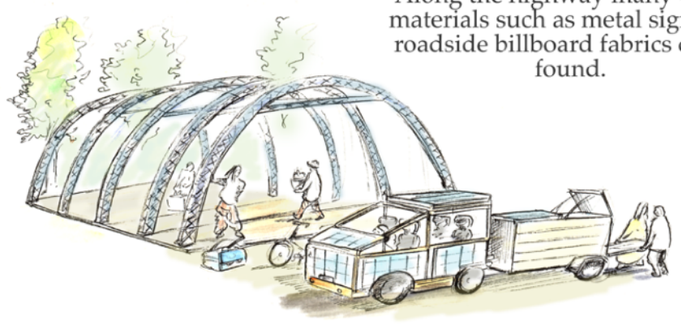


Collected metal signs can be re-purposed as roof tiles or transformed into furniture.



REUSE

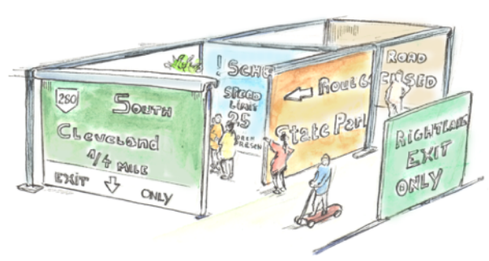
Some up-cycled houses are real works of art with builders providing personalized solutions and artistic flair.



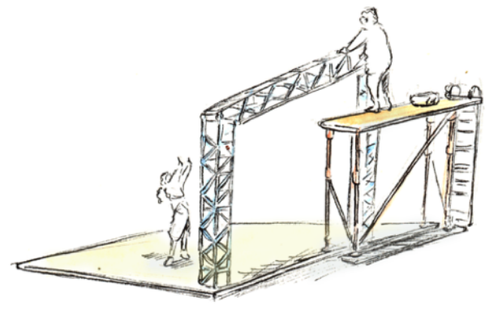


TEMPORARY HOUSES

This skeleton of a quonset house is used annually as a base by some traveling solarpunks.



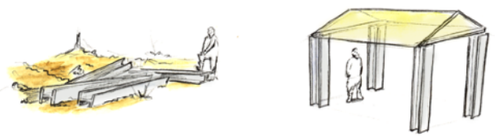
Some even use the large metal signs to create walls/dividers inside buildings.



New base structures are erected.

PLACES: pavilion structures

CREATIVE INTERPRETATION



Many industrial materials such as these steel beams can be used for the load bearing columns.



Sometimes old infrastructure is dismantled, like this crane.



Even large tree trunks can be used to make a simple pavilion.

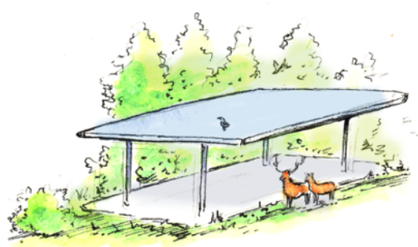


ARRIVAL

A group arrives at an unused pavilion somewhere in the woods.

SIMPLE BUT EFFICIENT

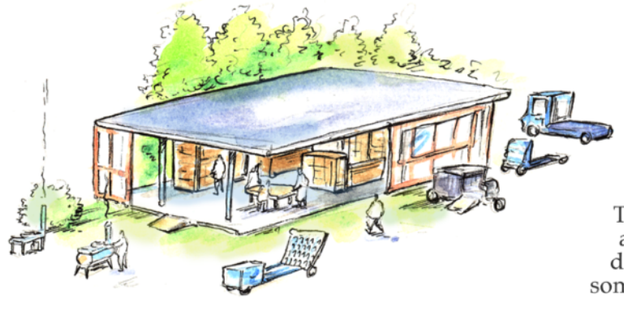
A popular housing solution used by nomads is the pavilion structure. Although a simple design, this structure provides nomads with good protection from the natural elements. The nomads are quite creative when it comes to creating pavilion structures. Some are brand new and made with the finest materials available, whilst others are built from whatever resources can be found in the immediate environment.

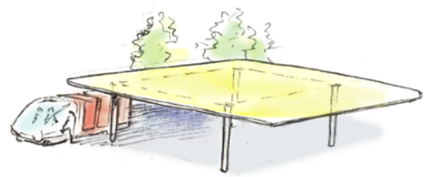


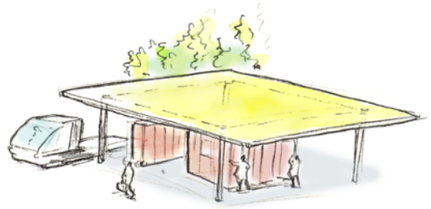
USING THE PAVILION

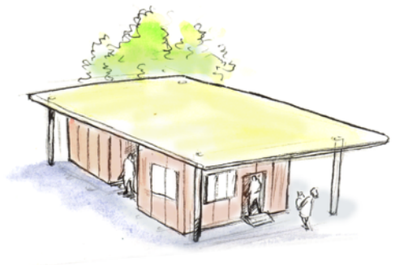
The open pavilion is converted into a temporary home. The furnitecture pieces offer an ideal solution to shape and decorate the interior space.

The interior space can then be sealed by attaching weather-resistant fabrics from the roof down to the floor.





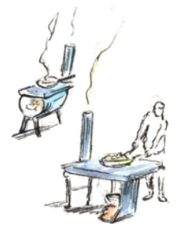




ROLL IN ROLL OUT

Groups of nomads drive their vehicles in and out of the pavilion.





LOW TECH

The nomads move with mobile devices that allow them to produce electricity, heat and drinking water. The small illustrations show some wood and solar-powered cooking devices.

Campsite

REPURPOSED CAMPSITE

A popular Solarpunk nomad site is a repurposed nomadic campsite. These sites form an interesting bridge between the more alternative nomads and people leading more conventional lives. Those less accustomed to nomadic life often visit these sites for fun day trips out, allowing them to discover new ways of living and take part in workshops and other fascinating activities.



1. A hangar with furnitecture designs

2. Parking where old vehicles are upgraded into solar-powered electric hybrids.

3. Old check-in is turned into a hackerspace

4. Food truck market place

5. Vegetable garden

6. Tiny house campsite

7. An old restaurant and bar turned community kitchen

8. Public shower hall and outdoor pool

9. Tent, yurt and tipi campsite

10. Geodesic dome house

11. Hanging sleeping pods

12. Community workshops & fablabs

PLACES: FORESTS

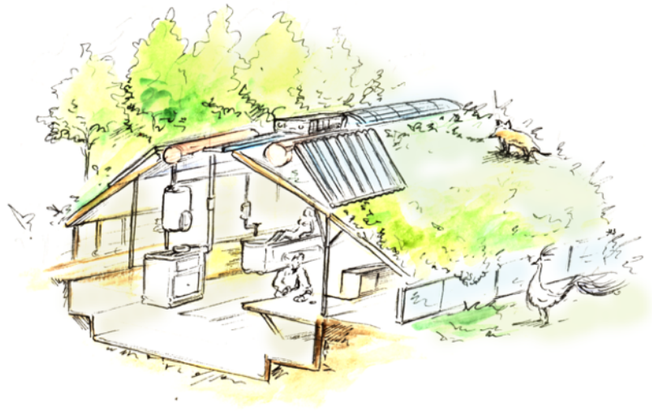
The nomads try to rewild and regenerate as much land as they can. Nomads often pass-through vast forests, making efforts to ensure they leave minimal environmental traces of their journey. Sometimes they must spend whole nights in the woods and often find shelter in small to medium sized villages.





SUBTERRANEAN HOUSES

In some forests you can find, hidden among the plants, famous underground "earthship" villages.





YURT TREEHOUSE

They found creative ways to build tree houses with minimal impact like this yurt-treehouse.





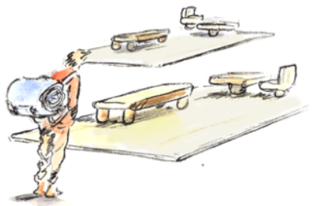


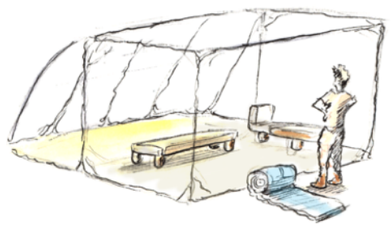


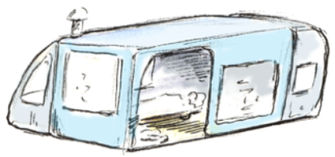
SLEEPING PODS

Other nomads use simple, compact sleeping pods. They anchor and tie the pods to tree trunks and use ropes and gondola systems to store and transport their equipment.

In more remote areas, tiny underground pods can be found. Each pod is equipped with a communication antenna, solar-panels, storage drawers and a bed.







TENTS, CONTAINERS AND THE COMMONS

There are many nomads who find walking, biking, and horseback riding more attractive. They refuse to use electric vehicles and instead opt for more radical ideas and an opportunity to make their footprint even smaller.

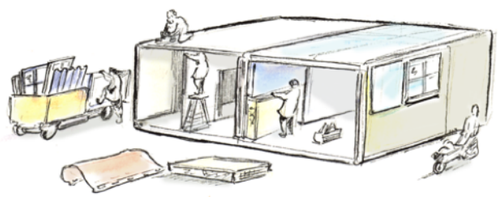
Overall, their lifestyle and activities are not dissimilar from other nomads, despite moving much more slowly and over far shorter distances. As with all nomads, they enjoy full use of the infrastructure and services managed by the many co-ops across the globe.

STREET FURNITURE

An interesting practice of nomadic hikers is the use of specially designed street furniture. These sturdy designs withstand harsh weather and can be used as indoor furniture when hikers arrive and erect specially made tent structures.

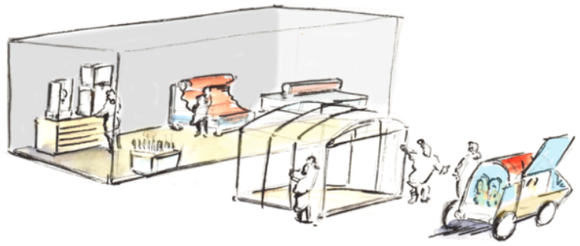






SHIP CONTAINERS

Containers were already frequently repurposed and reused in the past. Due to globalization and the mass movement of goods, these containers can still be found in abundance. Nomads strategically place them along hiking trails and travel routes, ready to provide refuge to passing travelers.





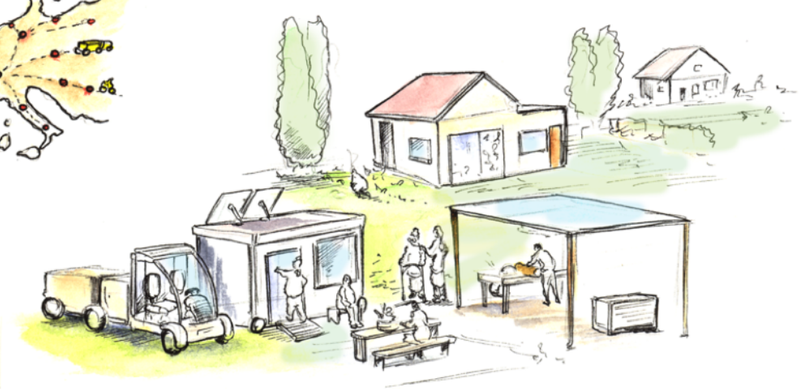
STREET FURNITURE 2

Specialised tents required for street furniture sites are assembled in specific workshops.



In some areas the equipment needed to set up these tents is kept in a lock box near to the street furniture, allowing hikers with keys to utilise this shelter.





COMMON LAND

Hikers also find refuge in existing houses and land that are still privately owned. In these cases, nomads often offer support to residents in return for this access to their property and facilities. Ultimately, when these land owners pass away, they often hand over their property to the commons.

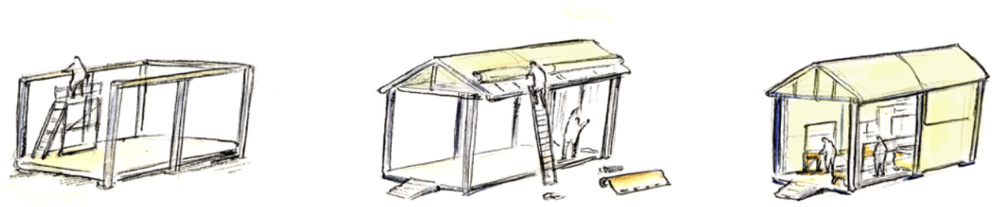
ADAPTION



Nomads have learned to adapt to any environment. Even when travelling through the harshest climates they have found a way to survive.

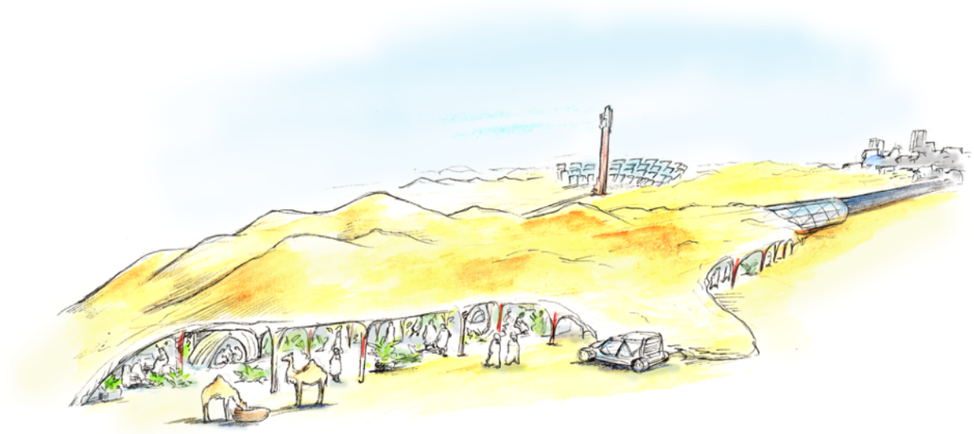
They can traverse many landscapes from mountains, lakes, swamps, coasts, and deserts to polluted and abandoned cities.

Their experience in these extreme conditions is particularly useful when helping communities residing in remote places.



ABANDONED MINE

Nomads reach an old, abandoned mine. They are on a mission to regenerate the region. They build barracks and other buildings out of old recycled materials and soon the new village is fit for use by new arrivals.



DESERT VILLAGE

An important nomadic route passes near an abandoned desert village. Here they build a semi-subterranean dwelling. This structure built partially underground and covered with sand gives them shelter from the elements.



ROAD INTERCHANGE

Another group arrives at an overgrown and unused intersection. They deem the old infrastructure structurally sound and within a few days turn it into a makeshift camp. They may even stay longer to harvest materials from the road that can be repurposed in future builds.

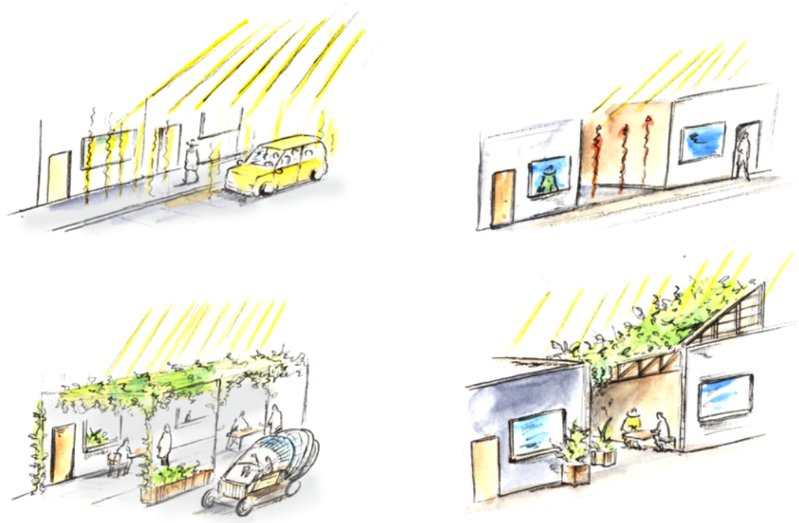


NEW VS OLD

On top new materials and techniques are used to harden the sand, whilst inside many low-tech solutions are applied. Since many once abundant materials are no longer available, nomads rely on ancient knowledge to meet their needs.

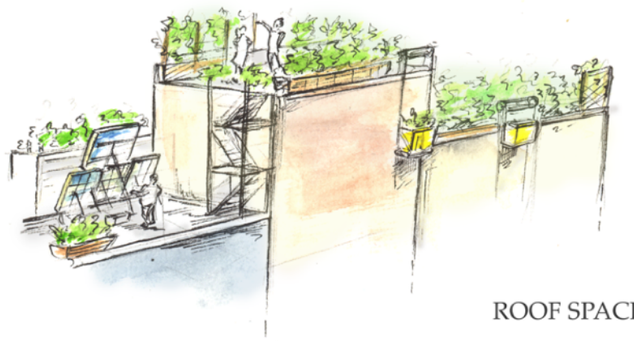
MISSIONS: urban regeneration

One of the principle focuses of the Solarpunk movement is the urban habitats where most people live. In the future, even more people will move to cities and many villages will slowly die out, returning land back to its natural state. To achieve this transition our cities will need a lot of investment. Currently, cities are built from materials that degrade rapidly and leave huge carbon footprints. They also contain little greenery and public spaces are heavily underutilized. On top of this, pollution is high and there are few integrated farming practices. Therefore, urban regeneration is a key focus for nomads and vital for local communities.



ANTI-HEAT

Whilst the old cities produce a lot of heat, simple tweaks can help address these issues.



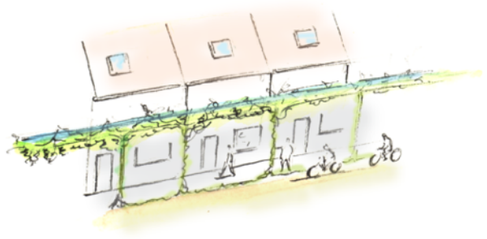
ROOF SPACE

Roofs are utilised more effectively, providing sites to grow lush gardens and generate solar power.



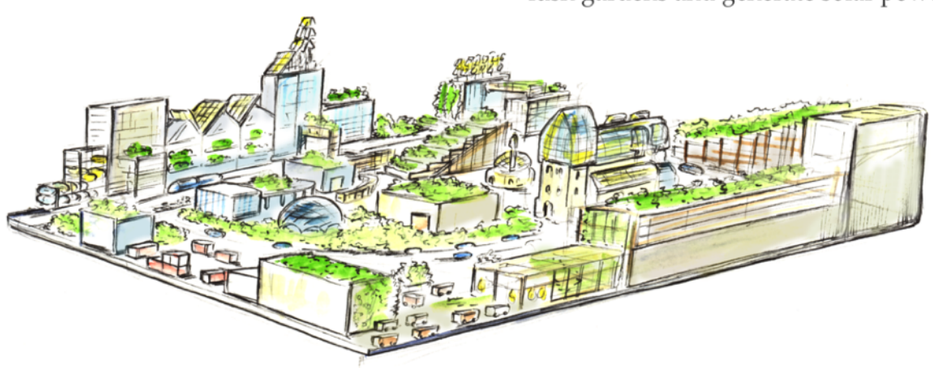
URBAN FARMING

New public spaces are used for a wide array of different projects. A particularly popular public activity is farming.



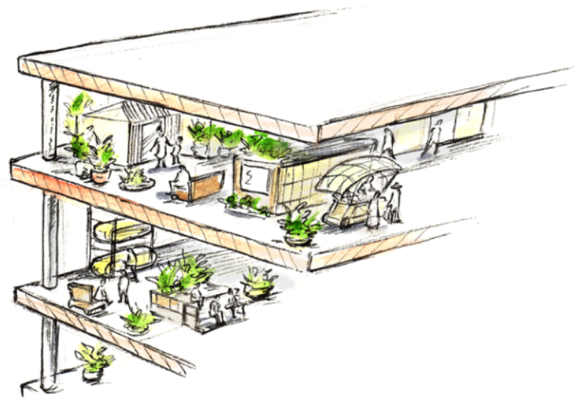
AQUADUCT

Water is regulated using more naturalistic methods.



A REGENERATED CITY

Cities are adapting to the fluctuating and sometimes devastating impacts of climate change.



SUPERSTRUCTURES

Many properties are transferred to the commons. People help build new smart housing solutions.



WORKSHOPS

Instead of a few large companies dominating the entire market, thousands of new, smaller workshops are being set up.



COOPERATIVES

Hundreds of cooperatives have been established. This plant nurturing cooperative is particularly popular with the older generations.

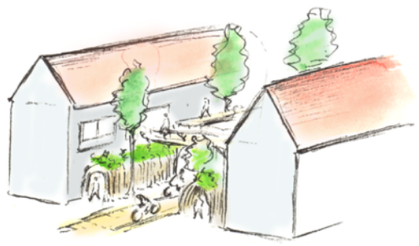


MISSIONS: greening

A key demand in many cities is to make them greener, bringing nature back into the equation. Previously mismanaged cities are reshaped with the help of motivated communities and nomadic guidance to transform them into lush, green urban environments.









WOODEN BRIDGES

These bridges originate from Japan. Thanks to the multicultural composition of nomadic tribes, many techniques and practices have been transported with the nomads across the globe. These wooden bridges use lumber from native trees and are constructed with other sturdy structures used to support hanging plants.



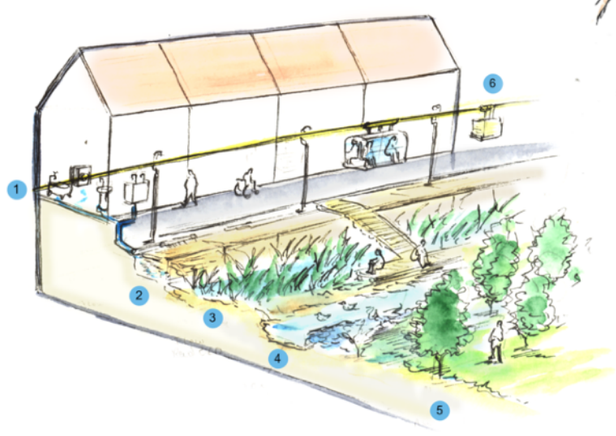
SUBURBAN NEIGHBOURHOOD TURNED INTO GREEN HEAVEN

This illustration shows how the community transformed a typically dull, gray suburban neighbourhood into a vibrant, green environment. Asphalt on the roads has been removed. Pastures and poultry have been introduced. Micro-forests have been planted. Grasses, shrubs and herbs are growing along new hiking and biking trails. New small ponds have been created and hanging gardens are everywhere.



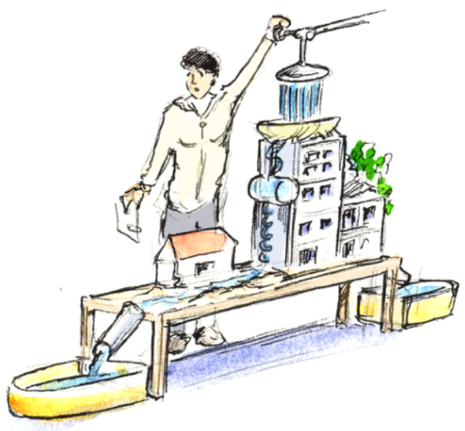
LIVING VEGETAL CITY

Many horticultural creations sprout up in the new green city. Walkways made from living trees are very common, providing protection from the sun and rain and homes for a wide diversity of wildlife.



PURIFYING WATER

1)wastewater from domestic households 2) wastewater infiltrates vertically into worm farms 3) water flows horizontally towards reed-beds 4) water flows into ponds 4) water flows into areas with swale-loving trees 5) new cable car system



PURIFYING WATER

Among the numerous experts required to establish these green cities are water specialists. They experiment with all sorts of new low-tech and high-tech methods to manage water in these cities. Decisions regarding this crucial component of urban ecosystems often leans towards solutions that best mimic the flow of water in nature.

MISSIONS: rewilding

We need to give space back to nature. For nomads this is a pressing and popular task. Around the globe, hundreds of rewilding projects are taking place simultaneously.



REGROWING FORESTS

Rewilding experts, biologists, conservationists and permaculturists among others are joining forces to grow new forests with native species. One way in which the forests are supported is through replenishing nutrients in the soil.



VERNACULAR KNOWLEDGE

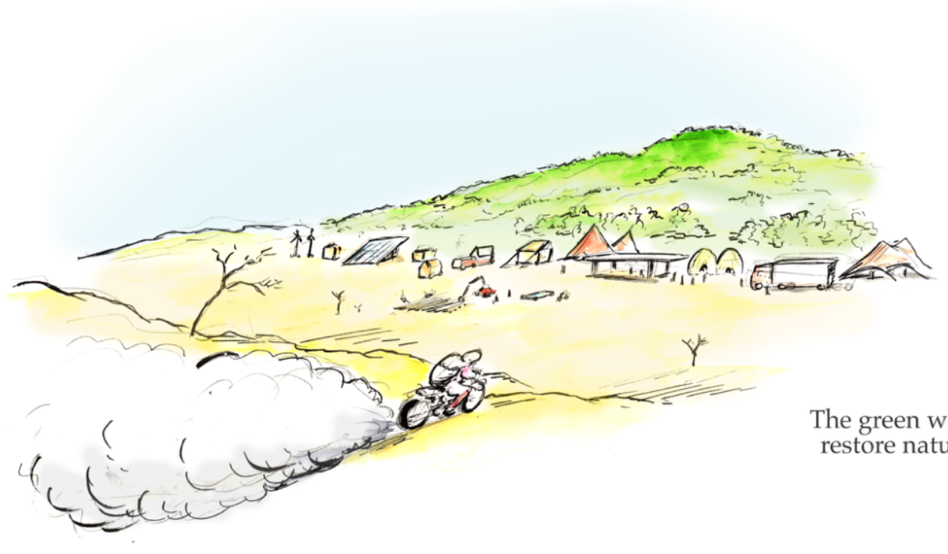
Again, the importance of indigenous knowledge has proven key to the success of rewilding operations. Many old techniques have been reintroduced. Here they use the ancient terracotta technique to keep seedlings moist.



SCHOOLS

To organize rewilding operations, the nomads established many specialized schools. They can be compared to nature education centres but are fully dedicated to ecosystem restoration.





NEW TASKS NEW PROFILES

Many people contributed to these complex rewilding efforts. Former landscape architects quickly applied their experience and knowledge to help plan and organize large-scale operations.

Farmers, gardeners and hobbyists have quickly become soil experts. They join nomadic tribes and help assess the conditions of the ground, a crucial step in rewilding.

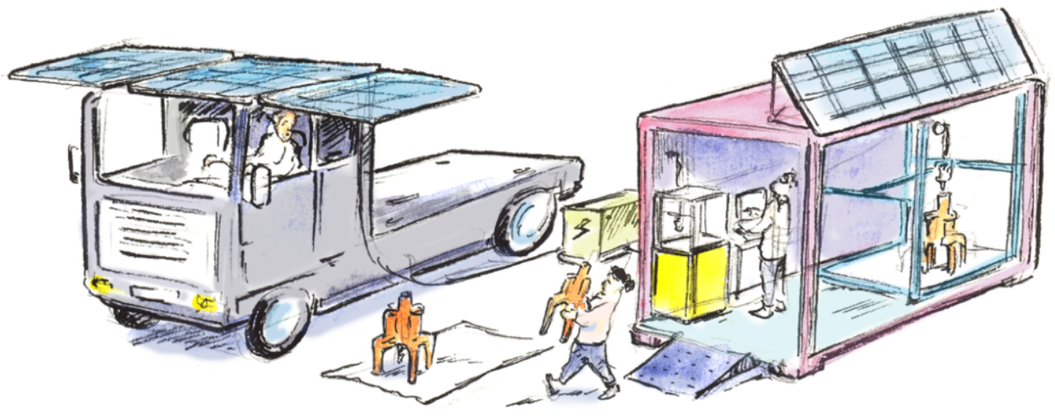


THE GREAT GREEN WALL

The green wall project started at the borders of Africa's Sahel desert and aimed to restore nature and prevent further desertification. It has inspired many nomads to start similar projects elsewhere in the world.

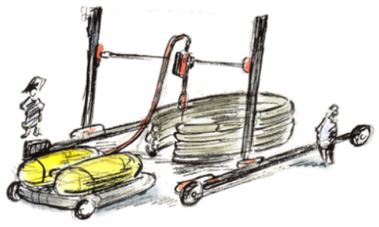
MISSIONS: construction teams

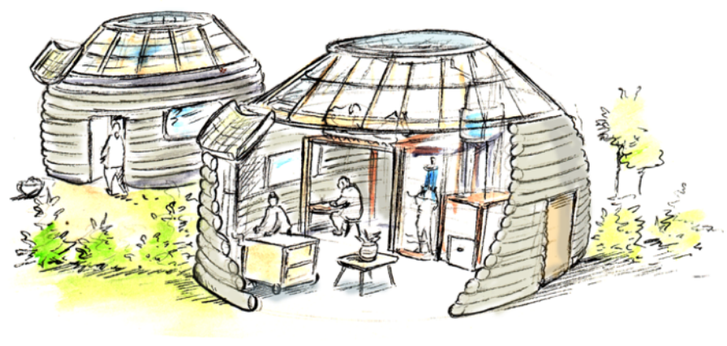
Lots of cities have been neglected for decades. This neglect has had an enormous impact on the remaining infrastructure and architecture. Due to the economic recession not much of the traditional construction industry has survived. There is a global shortage of construction materials and little progress is being made in the development of new materials. The result is further impoverishment and degradation of entire neighbourhoods. Luckily there are nomadic groups specialized in the reconstruction of such urban areas.



MOBILE WORKSHOPS

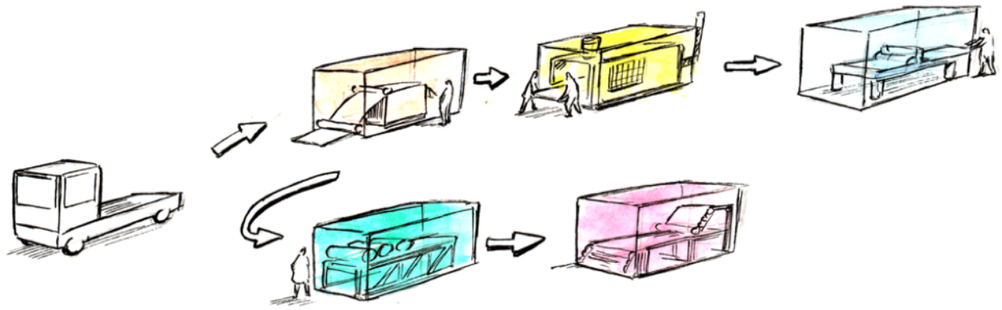
Mobile workshops used by nomads are inspired by FabLabs. They are custom made containers. This one is organized as a 3D-printing workshop. Nomads can print objects up to 1.8m in size.





3D PRINTED HOUSE

There are many printed houses. Nomads have developed unique large-scale 3D printers that can be easily moved and utilise new technologies to print with local materials (such as mud and clay).



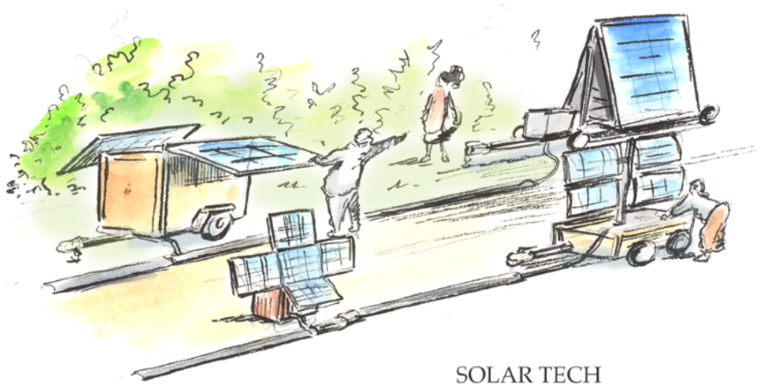


REBUILDING RUINED CITIES

Nomads usually head towards the old ruins of a city where there are still many materials to be recycled. They have a wide range of mobile container workshops to choose from, allowing them to recycle, up-cycle and manufacture their materials on site. During this process specialized construction teams work on building new structures.

MISSIONS: resiliency

There are still many communities living in small villages and remote areas. Nomadic tribes help them become self-sufficient. They focus on a variety of topics: energy, drinking water, heating, sustainable technology, sanitation, farming, nature conservation, maintenance, cooperative organization, healthcare, spiritual development, education… Perhaps not surprisingly, almost everyone can get involved.



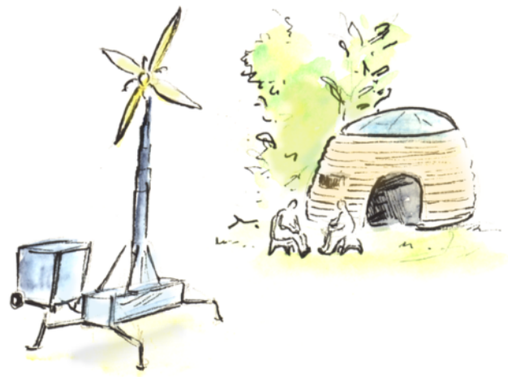
SOLAR TECH

Although solar technology still has its limitations and ecological impact, it continues to improve, and eventually more sustainable innovations emerge. Specialised nomadic groups have a lot of expertise when it comes to mobile and DIY solar technology.



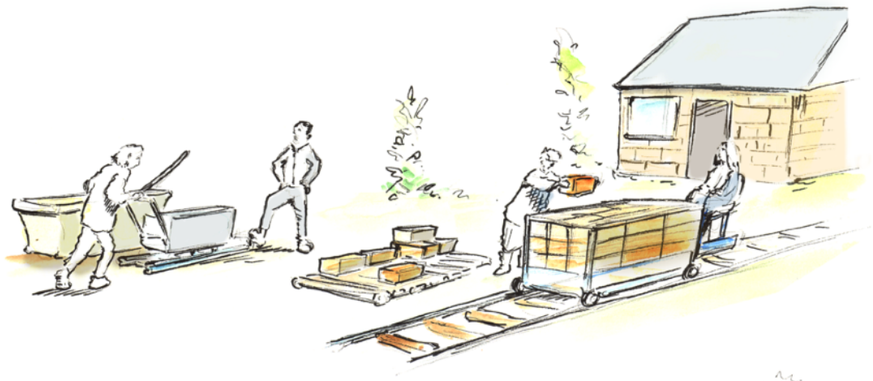
WATER CAPTURE

Many large and expensive water systems of the past became too complicated to maintain. Instead, communities prioritised the remaining mains systems and invested in local water catchment methods.



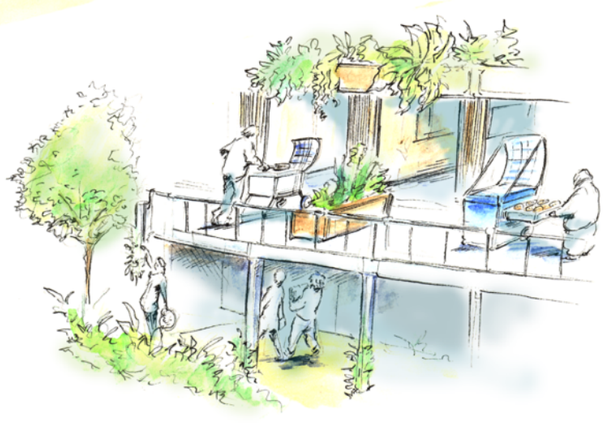
RENEWABLES

As the range of renewable technologies expands rapidly, solarpunk nomads travel and present the best practices to local communities.



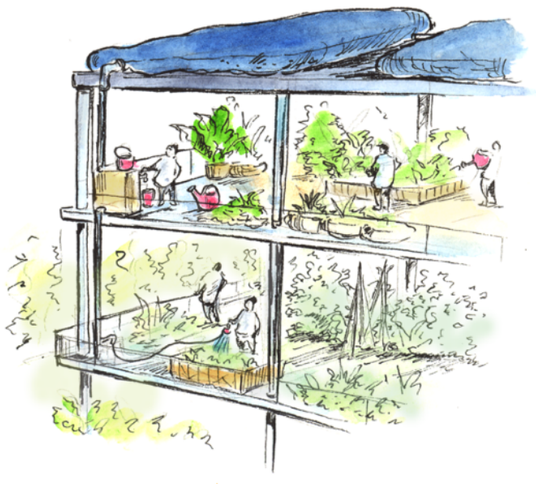
RAILS AND VERNACULAR ARCHITECTURE

There is a revival of vernacular architecture. Practices such as the rammed earth technique are used when appropriate. Smaller local rail systems are designed as the main mode of transportation.



SOLAR COOKING

A more leisurely lifestyle is possible now, and people find enjoyment in solar-powered cooking.



VACANT BUILDINGS

The local infrastructure gets retrofitted. Each installation depends on the needs and available materials and labour. This building has been converted into a multi-level vegetable garden with its own water collection system.