

**patterns of resourcefulness:
human(e) edges
collated by xin cheng**

A loose-kit for small modifications of
human(e) shared spaces, with stories &
tactics to inspire your own making,
gathered from walking through urban
environments in the Asia-Pacific & Europe,
2006-2019

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*What if, we look at our surroundings,
in the same way forest dwellers relate
with their environment?*

*What crevices, niches and unknown
pleasures might we discover?*

*What local know-how and peculiar
stories would unfold?*

*Building is a special form of suggesting.
(modified from Coaching for Results
training guide, BBC for business, 1994)*

Shared urban spaces are gardens:
a constant process in the making,
a ground for the interplay between
its maker-carer-user-hackers.

I drift, walking slowly, reading
material traces of activities and
small stories of the human(e)*.

Along the blurring edges of public
and private, sprout offerings of abun-
dant to fellow beings: stuff with
sensual pleasure, material poetry,
props for new activities, signs of care,
made by hand, from spare parts.

What could this be?

*To care about what one sees in the world
leads to mobilizing one's creative
powers... the desire to make something.
Richard Sennett*

The tactics collated here have been
used by professionals and non-
specialists alike, in various situations.
A knife could be used to prepare
nourishing food and to harm lives.
While they could serve any purpose,
in this book, I have selected stories
suggesting ways which our shared
spaces could be a place for expressing
the feeling of human(e) and diverse
possibilities of encounter with
fellow beings. They are lifeworlds
where things flourish along flatness
through piggybacking; where poetry
with frugal materials dot along the
sidewalks; where handmade seating
are scattered for chatting and rest;
where parking lots become living
ecosystems...

*Thank you Chris Berthelsen for this
word!

*The earth is a form of writing, a geogra-
phy of which we had forgotten that we
ourselves are the co-authors.
Georges Perec, 'co-' added by Xin*

The book title nods to *A Pattern
Language* by C. Alexander et al.
The drawings have been inspired
by Andre Leroi-Gourhan's *Milleu
et Techniques*, Atelier Bow-Wow's
Made in Tokyo and *Borrowed City:
MotoElastico*.

My drifts over many places told me
that resourcefulness is a universal
practice, like language, with its
regional variations. Rather than
bracketing the stories by geographic
location, I have threaded them
by their shared patterns, as a
polyphyletic assemblage of tactics
across cultural borders.

I hope these patterns could become
a loose kit for making, playing and
caring for your own surroundings.

Xin Cheng
November 2019, Hamburg

*At a tight corner, old
vehicle reflectors added to
existing street mirror. with
coiling tape. Kyoto, 2016*



street-sign orchid hammock
Phnom Penh, 2013



Beneath a street sign at an intersection,
a piece of bamboo is added horizontally
with coiling wire, which then enables
a series of wire hooks to come down,
cradling a former concrete sack, now
nesting orchids.

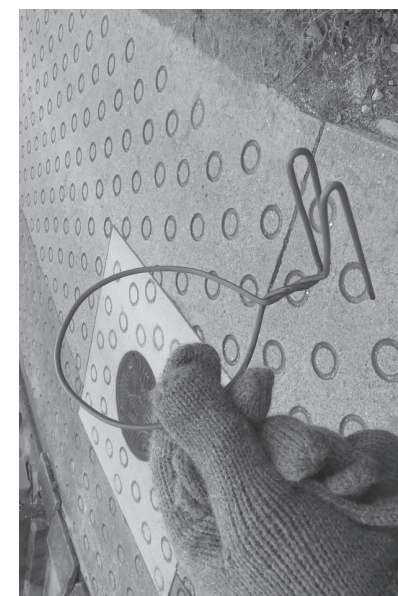
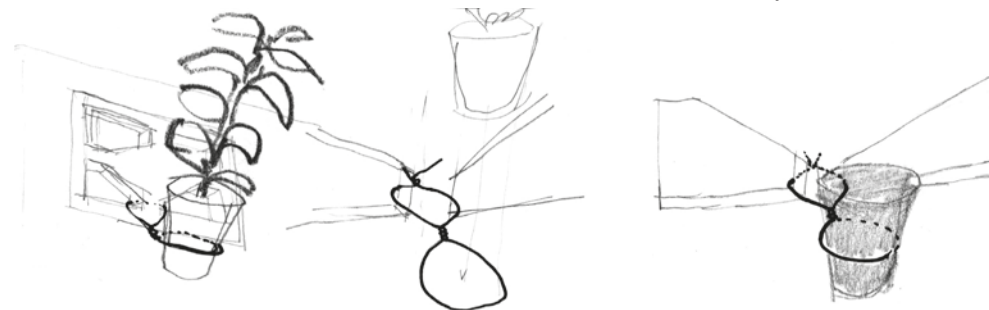
urban epiphytes

In forests, an epiphyte is a plant that perches on the branching point of another tree, nourished by the humus accumulating there, without harming the host, like some one standing on the shoulders of giants.

In the urban environment, epiphytes grow out of existing infrastructures, extending the possible sensual pleasures and the range of activities for passer-bys. They could be supported in many ways: hanging off, coiling around, wrinkling flatness...



Orchids held with loops from wire
clothes hangers, twisting around
a wall with holes, Kyoto, 2016



Similar pot holders perch on
roadside residential fencing.
Nagoya, 2007 (Found by
Chris Berthelsen)



On a fence by the footpath, a flax basket gives away surplus feijoa fruit from the garden. Auckland, 2014



*One can always set up a flat surface if there was not one around. Here, written by hand on a wooden pallets beside a green corridor: 'Dear people of Münster: these trees will be cut down for a construction project, please help keep our city green and lively.' Münster, 2013
Seedbombs are seeds encased in clay and soil, so they could germinate wherever they land.*

nests for sharing

Along shared paths, vessels piggyback onto walls and fences, offering things and activities for fellow beings.



On a mountain path, I was greeted by a wooden box with a lid of slate, hinged with wire, holding a visitors' book. A rim of black plastic provided further rain-proofing. Dale i Sonnfjord, 2008

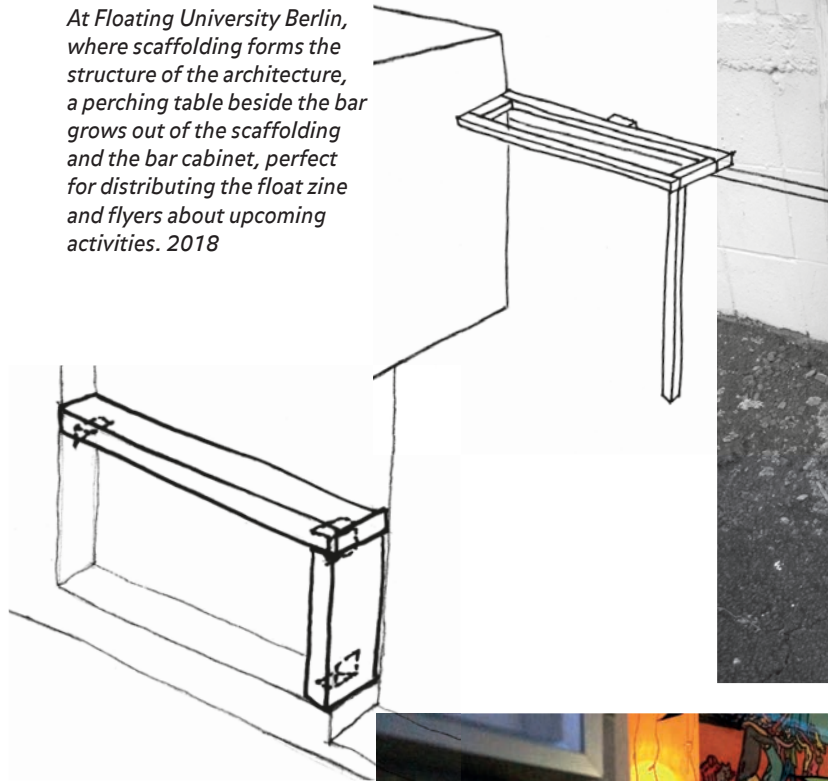
In the courtyard of a factory-cum-grassroots arts centre, a wine crate perches on the wall, offering ping-pong and cleaning tools. Geneva, 2014



wrinkling flatness

Horizontal surfaces offer possibilities like seating and perching. They often piggyback onto existing upright structures and recesses.

At Floating University Berlin, where scaffolding forms the structure of the architecture, a perching table beside the bar grows out of the scaffolding and the bar cabinet, perfect for distributing the float zine and flyers about upcoming activities. 2018

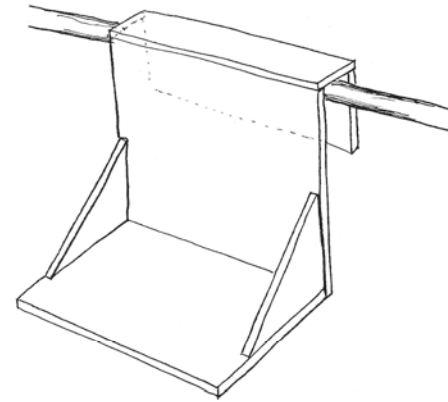


Outside a factory, a seat grows out of a post for power-lines. Auckland, 2014

**sandwiching around**

With open structures like fences, scaffolding and metal grills, one could sandwich two pieces of wood around them, and attach many things to it.

The hand-washing station at Floating University Berlin slots onto the scaffolding structure. The shelf holds three plastic tubs, with different kinds of water for rinsing hands. 2018



At the Asian Art Complex, projectors and media players perch on the railings of the upstairs corridors. Gwangju, 2015

Similar additions have been observed at train stations in Hamburg, to allow temporary handrails on metal fences around construction works. 2018



Wood planks held with L-brackets, growing out of recesses. Knee-height or chest-height? That makes the difference. Outside a kebab shop & a bar. Geneva, 2014

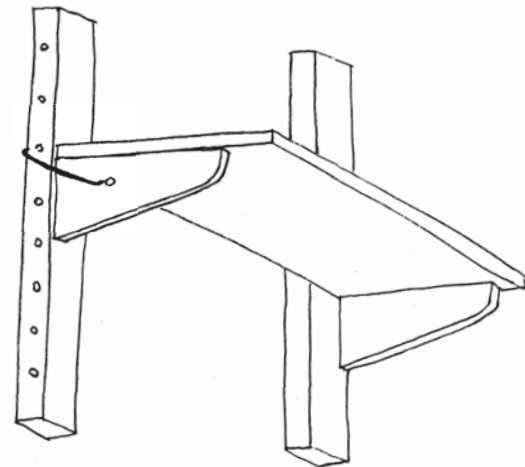


modular brackets

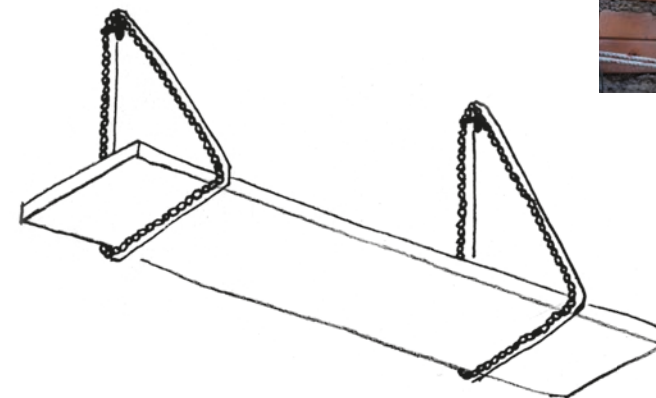
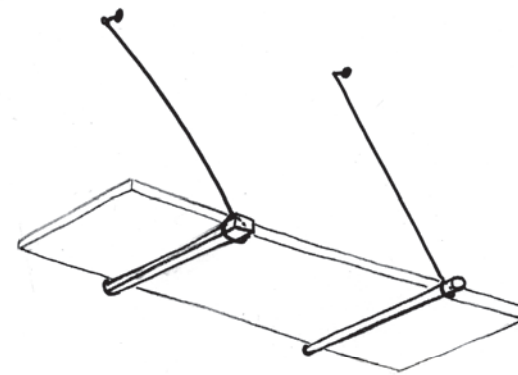
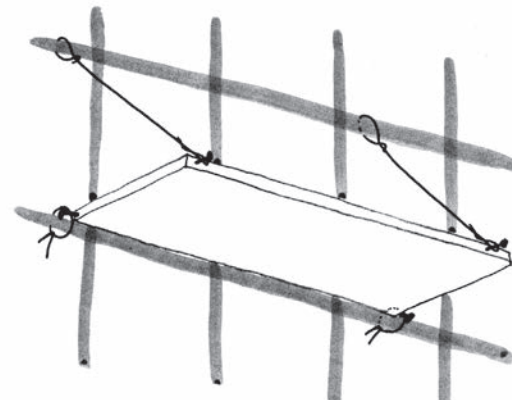
In conjunction with strips of holes on the wall, these allow collapsible shelves of adjustable heights.



A bracket system made with No.8 wire bent into square C shapes, and plywood triangles. From the storage room at Cass Field Station. Cass, 2011

**soft brackets**

String, rope, wire enable hanging shelves.



A shrine in a small workshop: the incense sits on a plank of wood, attached to the metal gate with wires. Phnom Penh, 2014



A stone's throw away from the above, in a small alley, a shelf perches similarly on a brick wall. Two holes on the wall allow supporting wooden rods. The tilt of the shelf is fine-tuned by inserting tile scraps. Phnom Penh, 2014

Bike chain loops form an elegant shelving system, from a man with a tiny apartment in Kobarid, who spends his summers on long bike trips. Old bike chains are reconnected into short loops, one screw set each onto the wall, then between two loops hang the plank. The segments of the chain hold the plank in place. Also note the wooden rods protruding out from between the books, allowing headphones and cords to hang. 2013

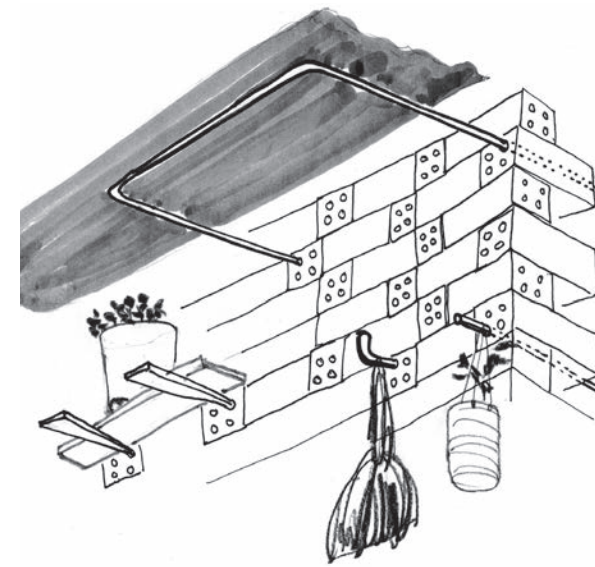


Modularity in Lego and Meccano is based on precise joinery and matching holes. There are also fuzzier kinds of modularity where loose-fitting is possible. These could be grown rather than prefabricated, where connections are gradually strengthened. Over time, variations build up: textures, layers, weathering and changing.



holey walls
Phnom Penh, 2014

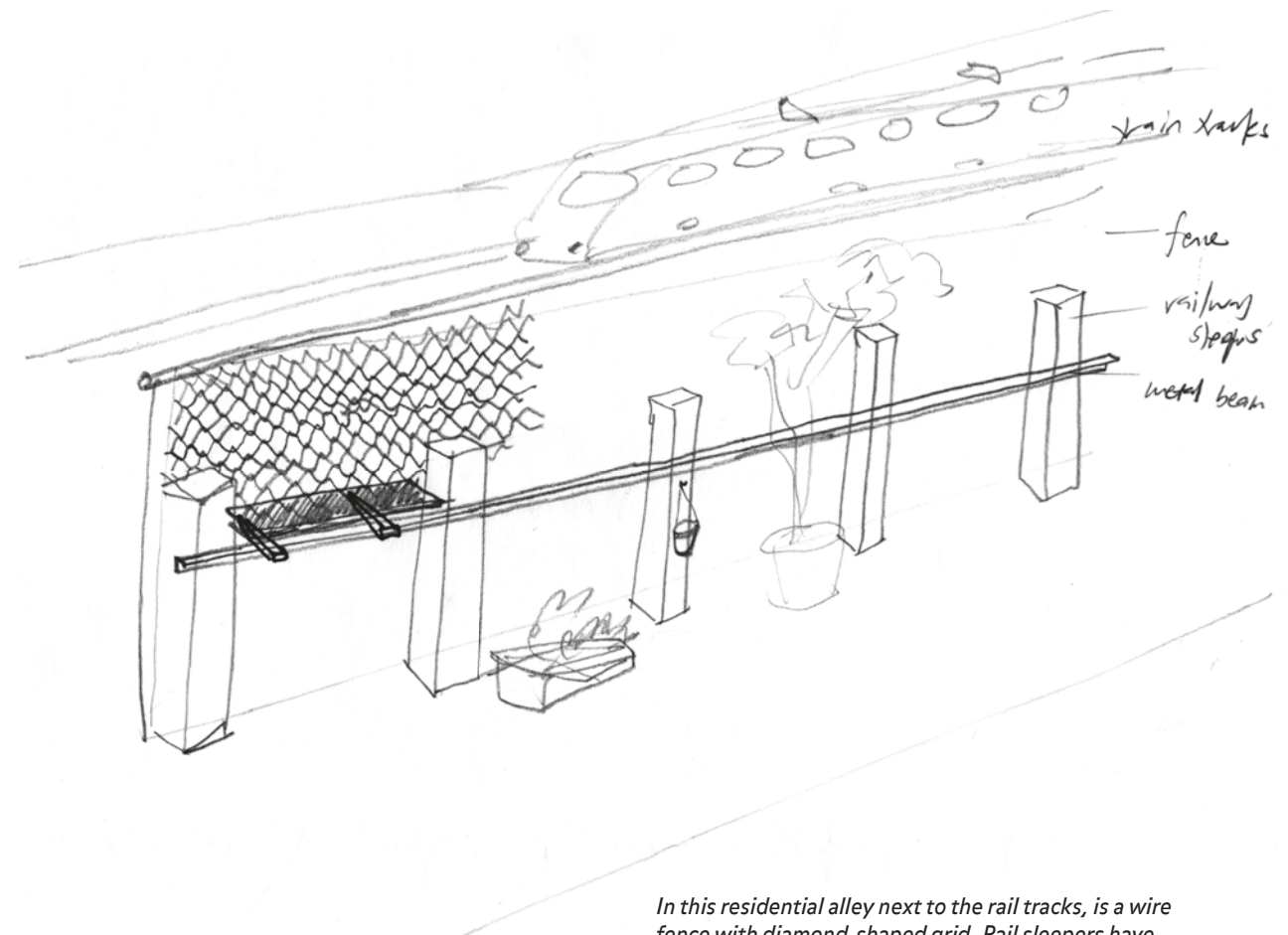
The terracotta bricks in Cambodia come with four holes. On this wall, presumably hastily constructed to separate a former slum from the White Buildings, the exposed holes came in handy as a system for protruding horizontal sticks. The length of the bricks (around 20cm) meant that they can hold the sticks in place, without the sticks tipping over or falling out. Any stick roughly smaller than the holes could be used, which in turn becomes an anchor for other things: shelves, hooks adapted from plastic plumbing pipes, hanging plants, bags of sprouts, awning supported by C-shaped frames, rainwater collection.



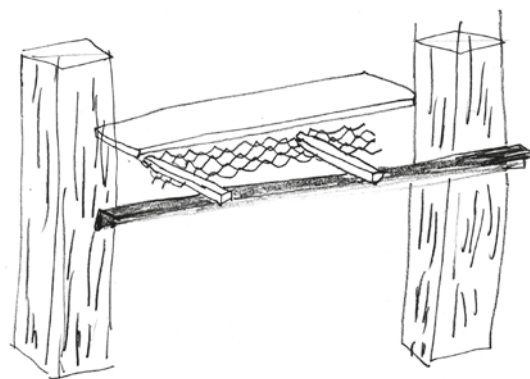
Rainwater from the adjacent roof is collected with a funnel structure and channelled into the hanging pots.



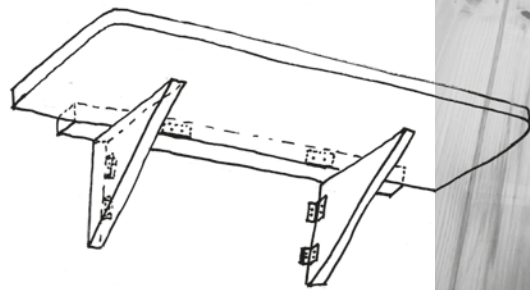
A self-watering plant pot, made by cutting a bottle in half. The top part is inverted like a funnel into the bottom. String from the bottom part enables hanging on the wall anchors.



In this residential alley next to the rail tracks, is a wire fence with diamond-shaped grid. Rail sleepers have been planted, standing up at regular intervals along the fence. Metal strips were added to the uprights, in horizontal lines. Sticks of all sorts perch, supported by the horizontal bars and the grids of the fence. Sitting on these stick-shelves are potted plants, bonsai, a tray of defrosting meat, gardening tools, pans etc. So simple a construction, so versatile! A grid, fine-grained, not necessarily with straight lines, but allowing many variations.



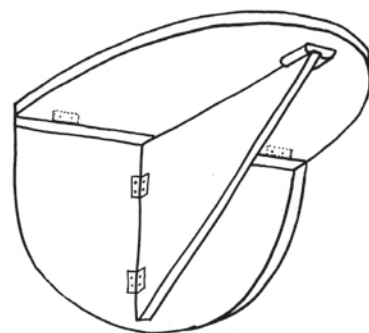
Hinges allow shelves to fold out and stored away easily.



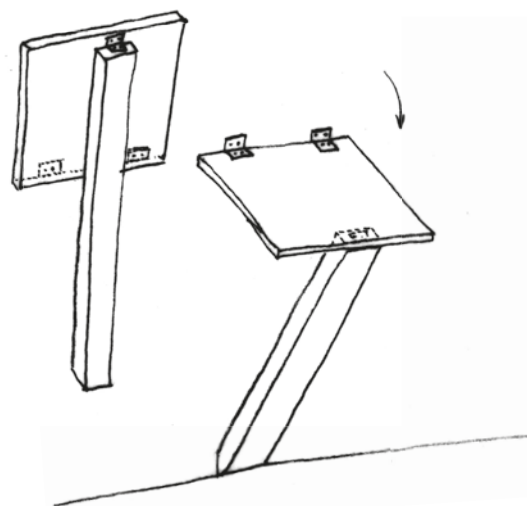
Window into a store: a fold-out ledge announces the availability of home-made snacks. Kobe, 2016



Corridor into a room: beside the library of a university, in a wide corridor, are semi-circular flaps on the wall. They fold out to become waist-height tables, for drinks and perching conversations. Stockholm, 2014



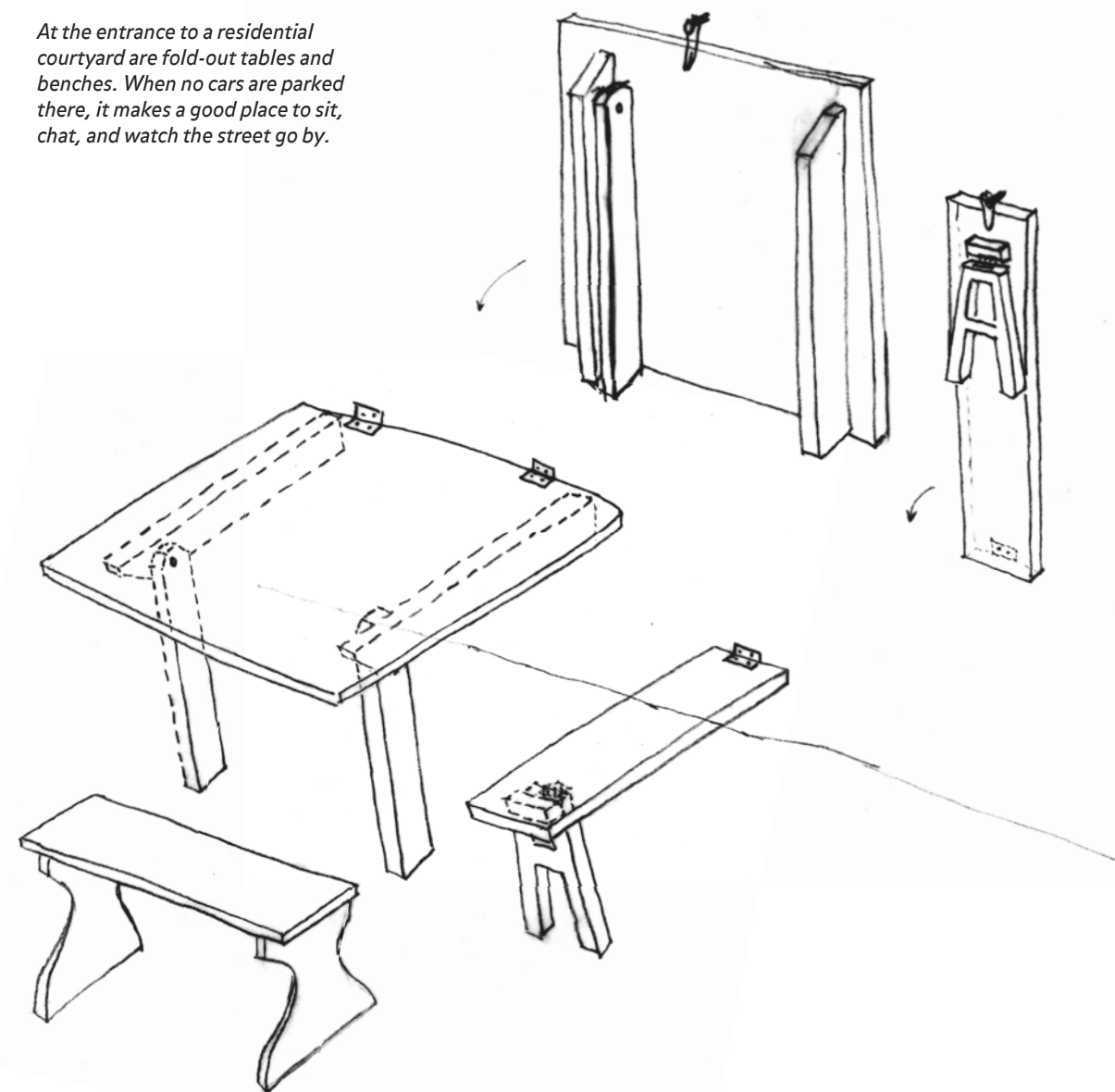
In a takeaway shop where the space for manoeuvring is slim, this folding table was made. Good for cleaning times, too. Auckland, 2008



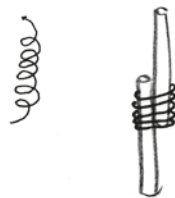
driveway conviviality
Sopron, 2013



At the entrance to a residential courtyard are fold-out tables and benches. When no cars are parked there, it makes a good place to sit, chat, and watch the street go by.



A simple joinery where pliable materials wrap around something rigid, allowing piggybacking and piecemeal construction.



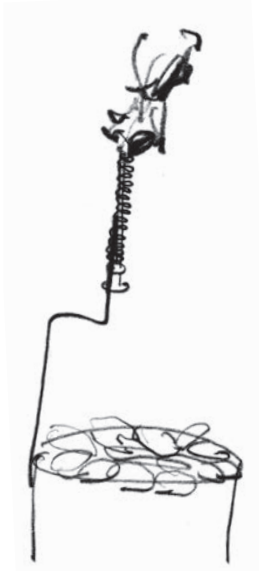
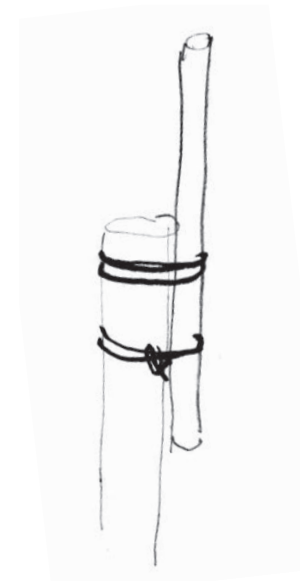
Entrance pole to a market extended with coiling rubber tubes. Phnom Penh, 2014



Avocado harvest tool: a broom stick was extended with bent wire clothes hangers, attached with coiling copper wires. Opatiki, 2013



Rain protection for a mobile sweet potato oven: a folding umbrella perches on a bent metal rod, helped by coiling wire. The oven is modified from an old oil drum. Yiwu, 2007



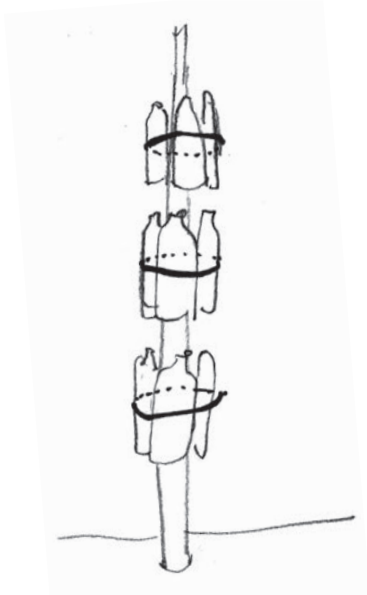
In a community garden, growing in-between the plants were former broom sticks, bent pieces of metal and wire, holding a butter knife and other tools. Note also the stacking hook. Geneva, 2014



Letterbox on a tree, attached with webbing. Stockholm, 2014



At a traffic light, a milk bottle taped to the pole offers plastic bags for the dog walkers. Mexico City, 2017



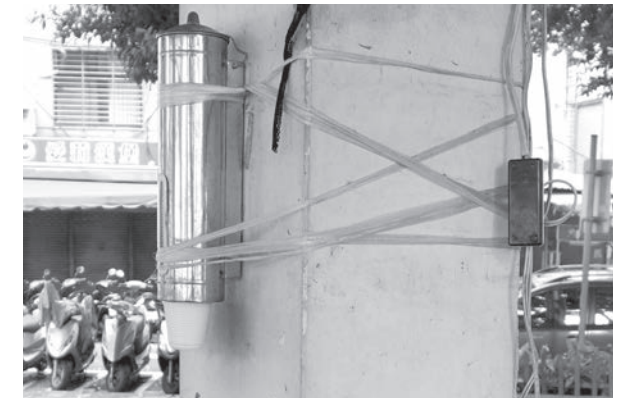
When bottles tripple, another effect is achieved. See page 54.



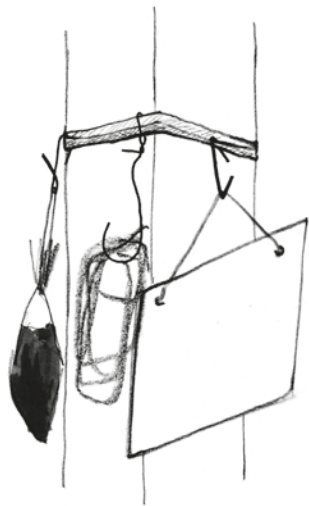
coiling around co-caring

Open shelters are welcoming places in a tropical place like Taipei, as sudden rain is frequent, and the temperature is pleasant for being outdoors all-year round. In this liangting in a neighbourly park, a concrete pole became an open living room, starting with a repaired metal shelf and a stack of disposable tea cups piggybacking with coiling plastic string. From walking by over a couple of weeks in 2015, I noticed many retired residents lounging here, reading newspapers, while the younger ones play in the outdoor gym. Four years later, I was pleasantly surprised to find not only the well-loved pot of tea on offer, but that the coiling rope had been strengthened, and now supporting cleaning rags, salvaged plastic bags, even some found keys.

open living room Taipei, 2015 & 2019



Coiling also provides anchors for hooks and other things to hang off.



Outside a general store in a street corner, coiling plastic packing straps provide anchoring for a sign, a bag of refreshing drink and more packing straps for future use. The smaller hooks are bent paper clips. Phnom Penh, 2014



Just behind the pole shown on the left, beside the shop is a downpipe. Large wire hooks hang off the plumbing clasp, for scooter helmets to rest. Perhaps this was the original inspiration?

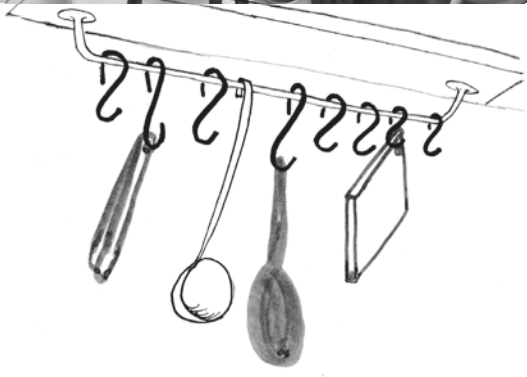


Opposite the general store are kiosks selling drinks and snacks. Here, a tree with a coil of red packing strip anchors a large selection of air-puffed snacks. Phnom Penh, 2014

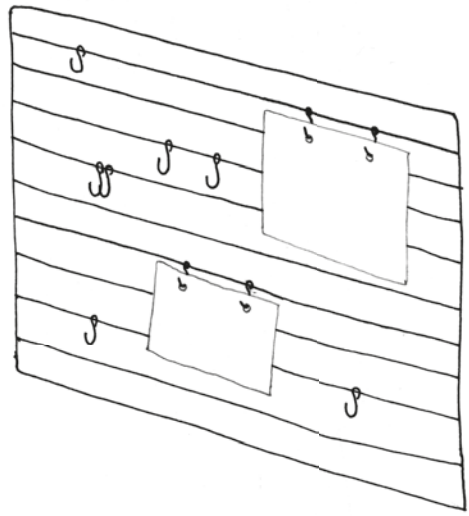
Handmade s-hooks from aluminium rods hold cooking utensils and a chopping board. Vienna, 2013



The extra bend on top of these hooks secures them on the rail, especially for heavier things like pineapples. Phnom Pehn, 2014



In the window display of a restaurant, small hooks on a metal rail system allows a changing display of paper notices, with holes punched into them. Milan, 2014

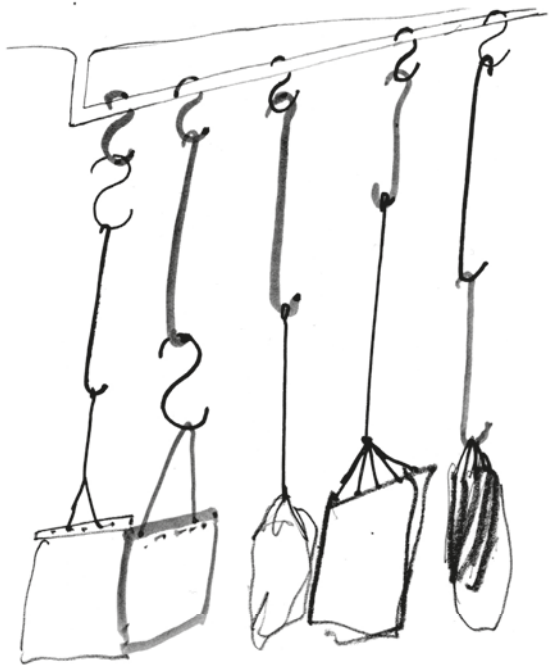




hooks & systems

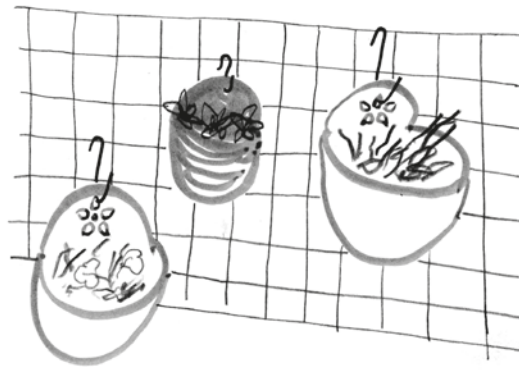


W-hooks for paired hanging in a series down the length of a string, one after another. Small bags of peanuts, dried mushrooms, pepper and oil are displayed this way in a market. Phnom Penh, 2014



Outside a school-supplies store, hooks on hooks extend down from the awning support, offering game sets. Phnom Pehn, 2014





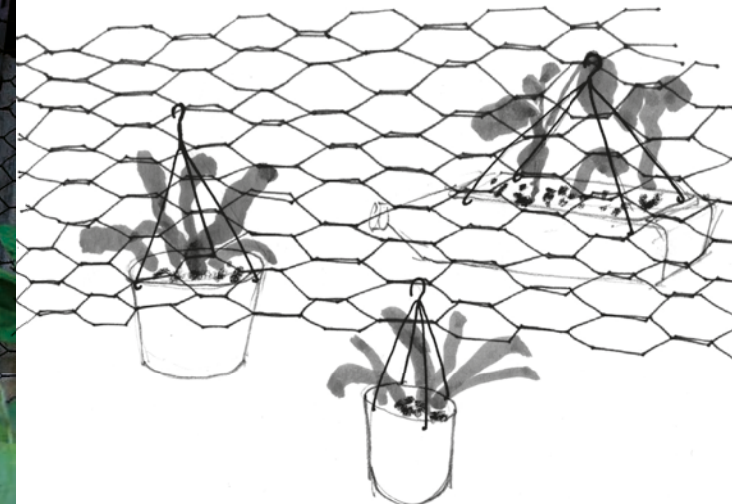
The facade of this small house was a wall of blooming flower. Here, on its side, the underlying mechanism is revealed: metal grills and s-hooks made from wire clothes hangers. Kyoto, 2016



A stylish lady is the proud carer of this fragrant gate, where holy basil, sawtooth coriander and chillies greet the passer-bys. The pots, some of which are from plastic bottles and yoghurt tubs, hang from wire hooks: three strands threaded into holes in the pot, bound together on the top into a hook. Phnom Penh, 2014

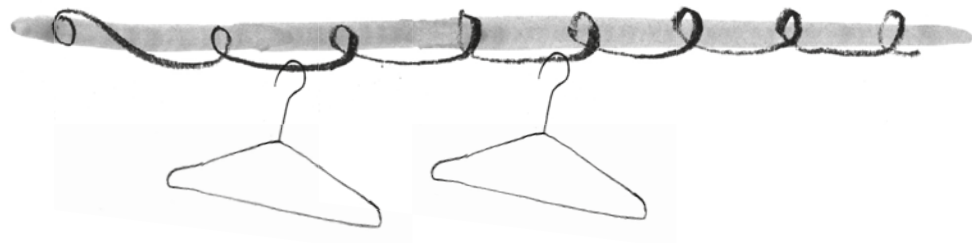


Elongated s-hooks hang off a hand-made rope net, for bananas. The fruit keeps better when hung up, similar to how they were on the tree. Phnom Penh, 2014

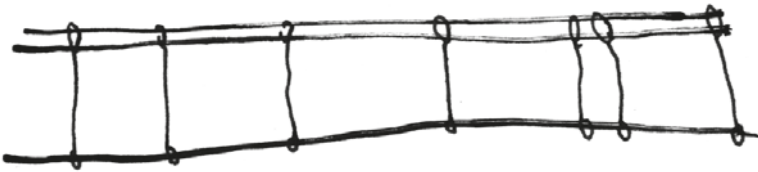


To prevent hanging things like laundry from sliding along and bundling together, weaving systems are introduced to divide the line into segments.

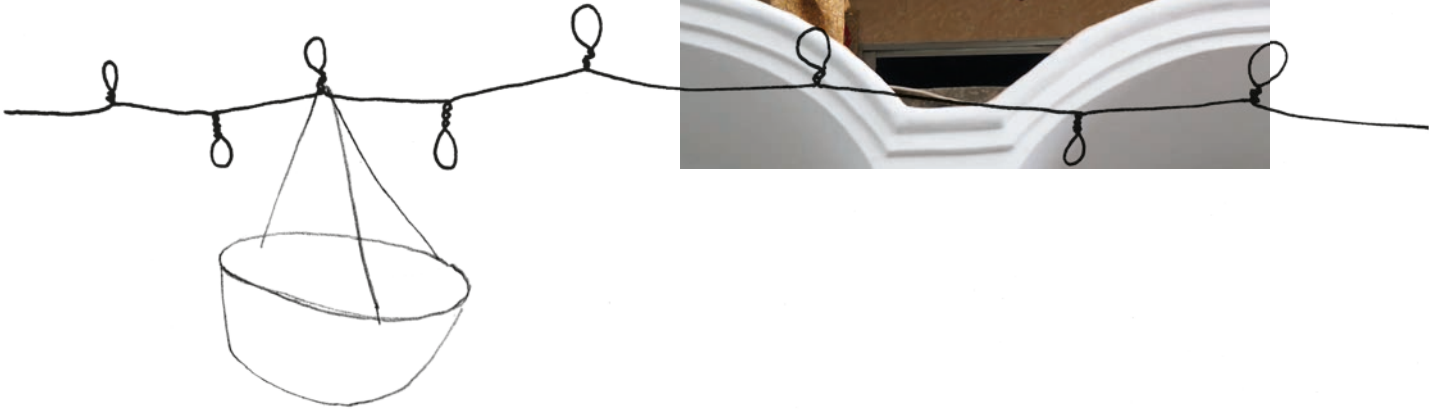
An old TV cable and a plastic pipe are transformed into sturdy washing lines with a roll of half hitches, made with rope and plastic string. Seoul, 2015



A ladder-like structure holds this assemblage of clothes and orchid in place: a long metal pole and an old electrical wire run in parallel, held together at regular intervals with short segments of electrical wire. Phnom Penh, 2014



Loops form, twisting along this wire line. They also become hooks for the baskets of curing meat. Phnom Penh, 2014

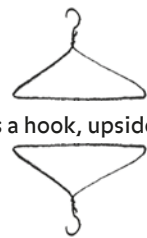




Outside a small but amazing hardware store run by an old man, is this hanging display of assorted gloves. I suspect it was a revamp from a number of broken sock-drying racks, as evident in the chains with a variety of plastic pegs attached. The circular frame had been replaced by a sheet of pliable plastic, bolted into a cylinder. It was wide enough to allow hand-written labels and price tags. Holes were drilled along the bottom. Additional hooks were made from paper-clips.



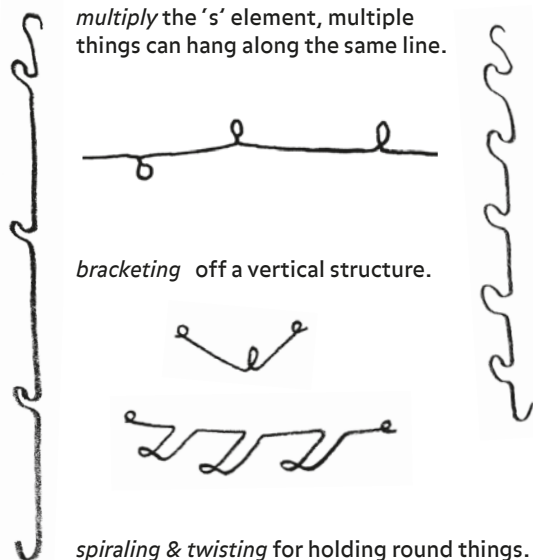
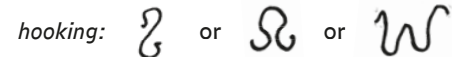
Wire clothes hangers could hang many things other than clothes: signage, rubbish bags, pot lids, pot plants, footwear, bags of merchandise...



A hanger is a hook, upside down

Simply bending or twisting by hand could make a big difference.
Or, when pliers and wire-cutters are at hand, the hangers can be treated as rigid wire.

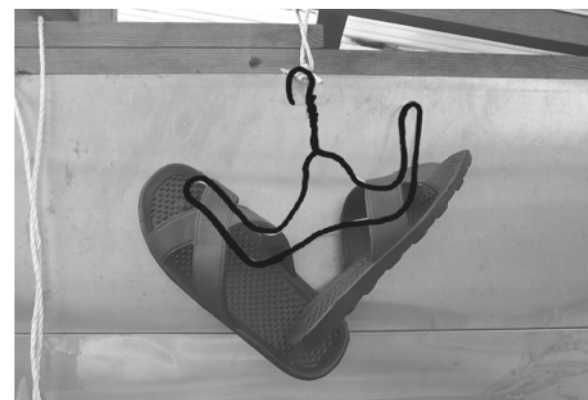
The possibilities are infinite:



Various situations are transformed by adding hangers: borders become edges for sharing; fences become vertical gardens; flat surfaces become articulated steps. A rail, a ledge, a string across two beams—or an alleyway, an vertical grid, some holes, a screw... Almost anything could become a foothold for a hanger to perch on. See also pages 4, 5, 26.



A car port transformed into a hanging garden. Tokyo, 2007
(found by Chris Berthelsen)



The same general shape can hold a variety of things:
A calendar. Kyoto, 2016
Slippers. Tokyo, 2007
Pot plants. Tokyo, 2007
Rubbish bag. Kyoto, 2016
Pot lids in a kitchen (additional lids piggyback off the hanger with more hooks). Kyoto, 2016



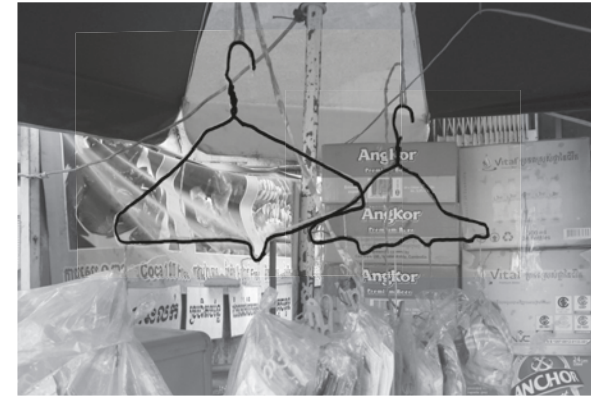
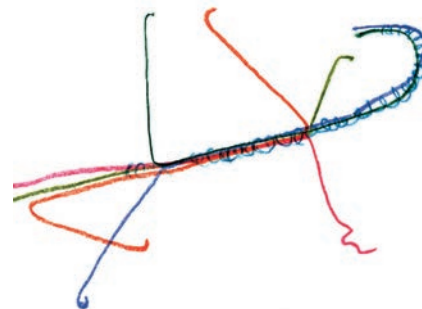


While the maker of this could not be found to reveal its purpose, Vladimir Arkhipov's book, 'Home-Made: Contemporary Russian Folk Artifacts' told a story that similar constructions are excellent for drying soaked boots, by hanging them upside-down. Taichung, 2013

A hanging plant pot: two wire hangers cut open and hooked onto the edges of the plastic planter, where small holes had been drilled. Tokyo, 2014

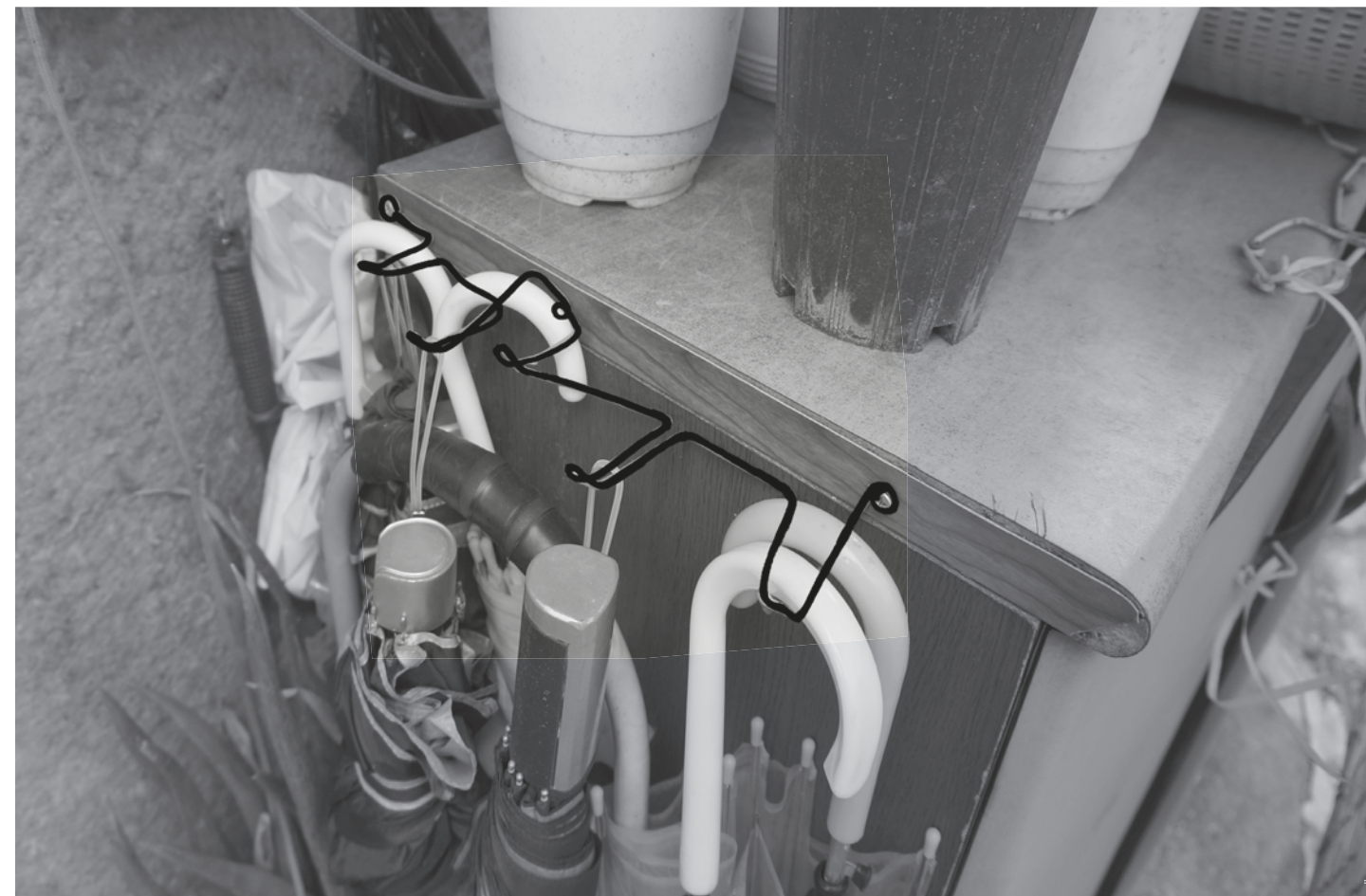


Resting on top of a mobile kitchen was a whorl for hoisting giant bags of popcorn. Three coat hangers were deconstructed and bound together with thin wire. Phnom Penh, 2014



At a street-corner store, wire coat hangers swing from the ribs of the sun-umbrella. The notches allow bags of disposable raincoats to evenly spaced, not slide around in the breeze. Phnom Penh, 2013

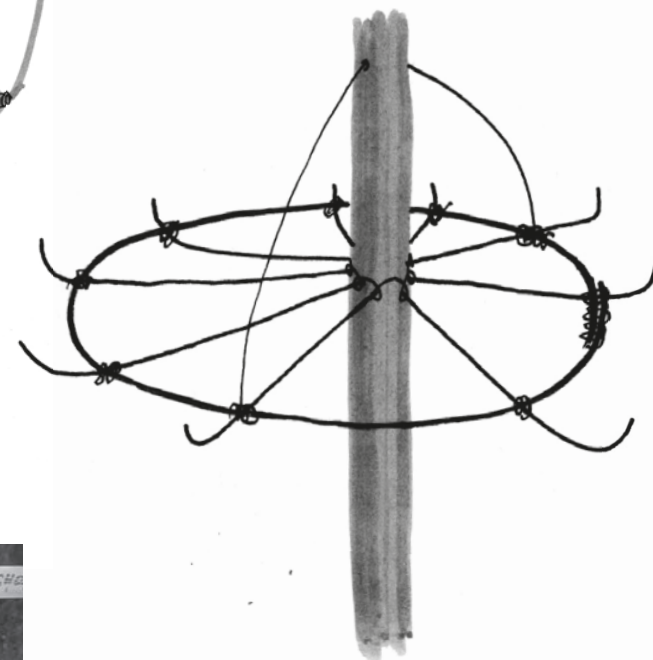
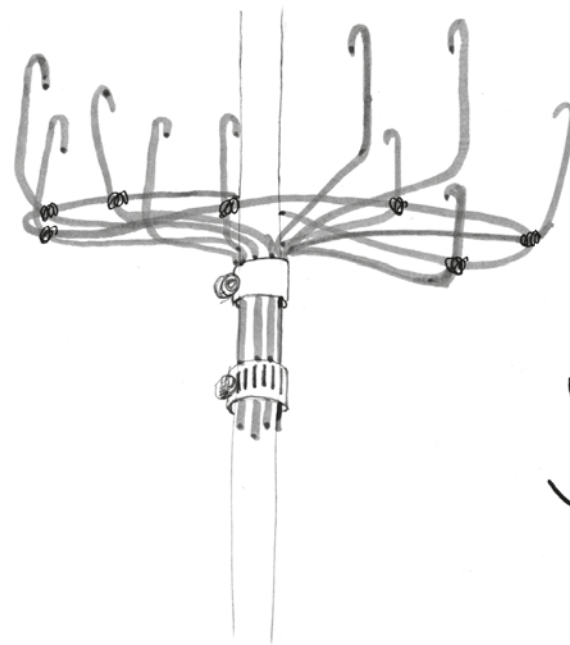
From the junk shop 'Odds'n'Ends', these multiple s-hooks held anything from framed pictures to tea cups. The owner deftly made one for me in less than a minute. Dunedin, 2016



By an entrance door, hook-series screwed into the side of a cabinet, for umbrellas. Seoul, 2015

whorls

nomadic fragrant softness
Phnom Penh, 2014



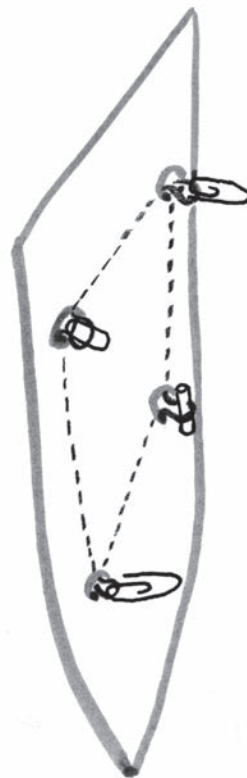
At dusk and nighttime, when the tropical heat retreats, people come out to the promenades and riverside: to stroll, jog, play games, and eat. Many nomadic traders add to the range of sensual enjoyment. Here, puffs of sweet-smelling colour hang on intricate whorls, made of wire in radiating lines and circles. They move on scooters, or as mobile trees on wheelie chair bases.



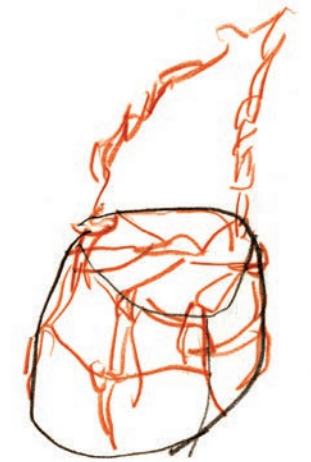
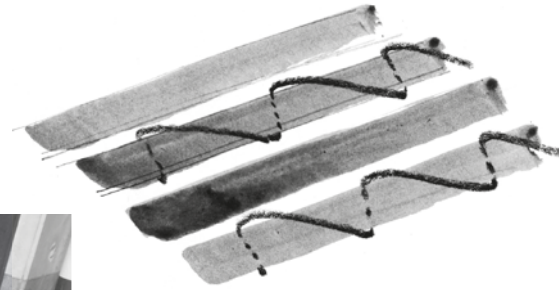
Pores and small bits allow the attachment of many things in tiny spaces.



Outside a second-hand bookshop, elastic cords secure books to tables, through slits. Geneva, 2014



Outside a boutique store for children, a Pinocchio figure holds the season catalogue on his shield, attached with a system of elastic string through holes, anchored with paper-clips and small wooden bits on the back of the shield. St Julien, 2014



Hanging plant from a balcony. Tokyo, 2014



Macramé nets for the papaya, from plastic string. Phnom Penh, 2014



A rock as ground anchor for a sun umbrella in a market, tied up with plastic packing straps from fruit boxes. Phnom Penh, 2014



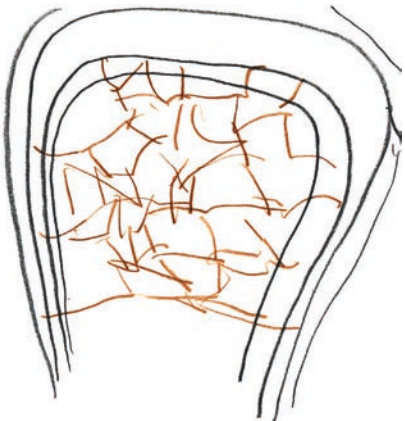
Obsolete cable-TV cables became sturdy netting for this recycling collector's cart in Seoul, 2015



Netting over a small vegetable patch woven from metal rods, electrical wire and plastic string. The uprights were wooden curtain dowels. Seoul, 2015



Coils of plastic packing strips improve another recycling collector's pushcart, this time in Hong Kong. Intertwining and coiling makes even a fragile material strong. 2014



A bentwood chair became more comfortable with a net of yellow string on the back support and a small cushion secured with pink fabric strips. Phnom Penh, 2014





Ecology, gardening, textiles, architecture could be enmeshed with each other.

Dammtor garden
Hamburg, 2016-2019

A patch beside the Dammtor train station, next to a path to the Hamburg Congress Center. I first came across it in December 2016 and three years later, the garden persists despite the demolition and re-construction next to it. It grew and decomposed over the seasons, both the plants and the human-made construction. There were kale trees in the winter, chives coming out in the spring, and climbing beans in the summer. In winter some of the perennials were protected from frost with a cover of supermarket bags. The raven sculptures add a touch of whimsy. The fence is woven out of used grills, broom handles, tied together with the red and white safety strips, often placed around fallen trees during the stormy season by the officials and forgotten once the logs had been removed. The plastic strips do not last long, but they get replaced regularly. Their form remind me of grapevines twining around wire forms.

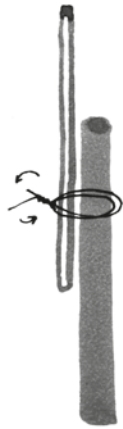


mountain potato shelter
Kobe, 2016

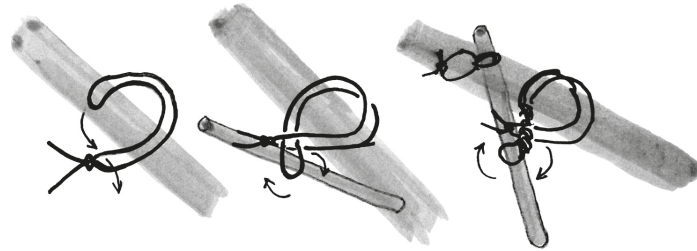
I stumbled across this while following an untrodden path which I thought lead to the top of the Kobe Mountain. Being close to the city, and dotted with waterfalls and reservoirs, the area is a popular spot for day walks and picnics, even with a cable car to the top. I first noticed the silver tarpaulin cover, then this circular fence, the opening reveals a patch of potatoes. Remarkably, the fence is densely woven out of braided fabric strips and sticks from the surrounding trees. So intricately constructed, its fine craftsmanship brought to my mind the Scandinavian rag rugs, the Japanese boro textiles, and the slippers made out of old kimono cloths. How much patient handiwork gave birth to this, while the potatoes quietly grew beside it?

Peering into the enclosure, one could see that the fence leans inward at one point, and with the draped tarpaulin, creates a shelter for vessels of water and other materials, possibly makes a cosy nook for sleeping too.





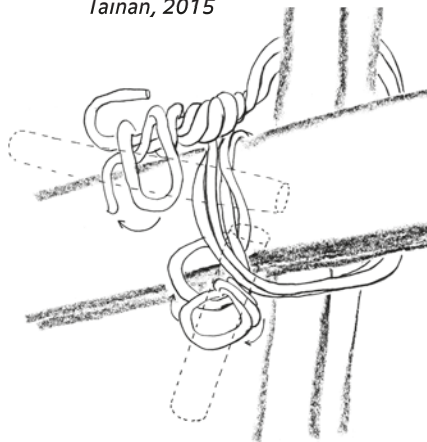
Twisting offers a simpler way of securing a coiled joint than tying. It makes a tight joint, even on a slippery material like bamboo. Depending on the pliable material, it could be done by hand, or assisted with sticks. While similar to zip-ties in result, this offers much more versatile applications.



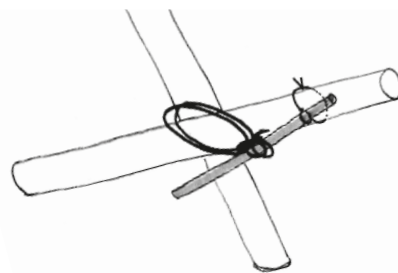
Bamboo poles tied together with freshly-sliced strips of green bamboo (skilfully done with machete). The drying out of the strips tighten the joint over time. From a kitchen shed near Pai, 2015



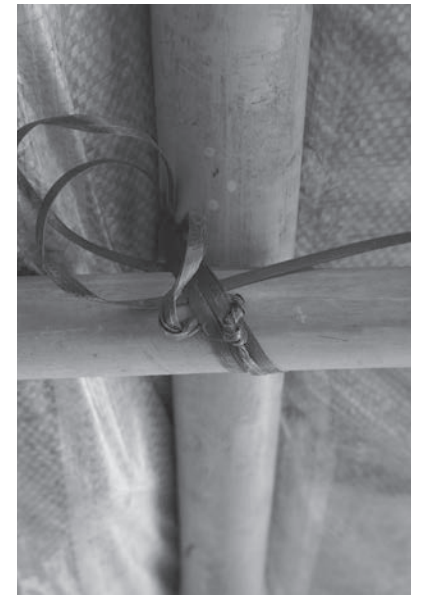
In a carpark-garden shed, old ladders and strips of wood are joined together with salvaged wire. A stick was used to tighten, leaving two loops in the wire. Tainan, 2015



Construction scaffolding made with rope wrapped around poles. A thin stick of bamboo assists the twisting, which is then secured to the poles with thin wire. Everything could be disassembled and reused. Phnom Penh, 2014



Same technique used in metropolitan Hong Kong for scaffolding, where plastic packing strap substituted the fresh bamboo strips. 2014

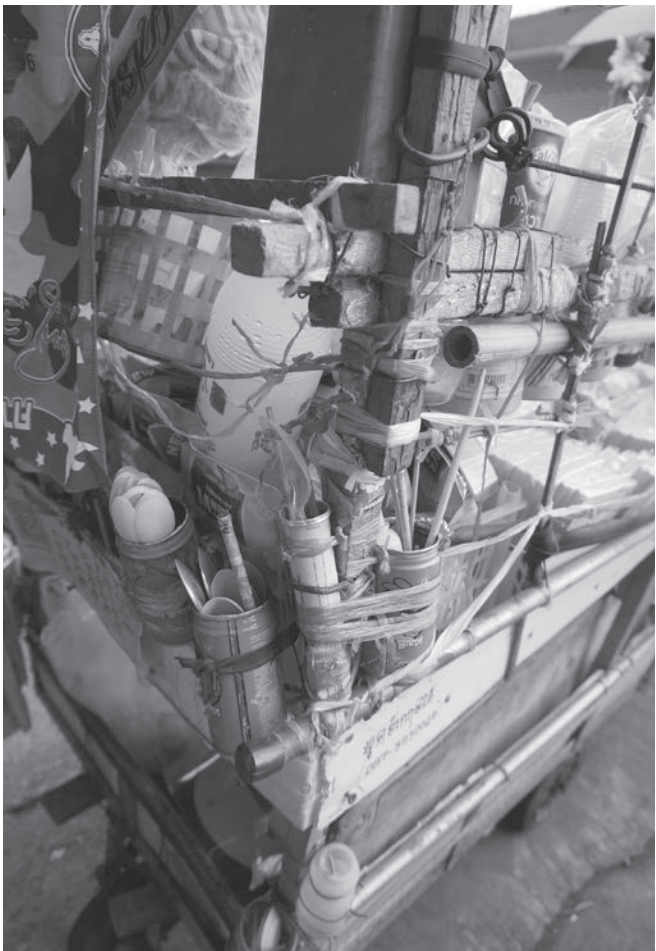
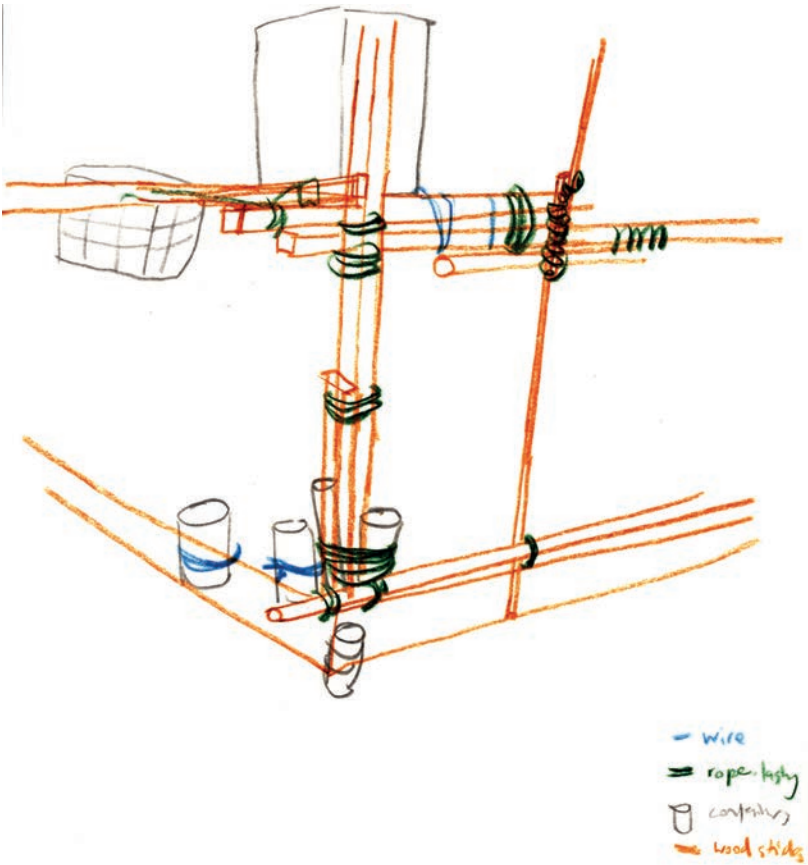




piecemeal growth

fractalling cart
Chiangmai, 2016

In a market, a well-loved general store on wheels, has been growing over the years. Short and long sticks created the structural frames, joined with coiling plastic rope. Hooks and elastic cords from bike inner tubes dangle down and ready for further coiling. Cans, bottles and other container made from packaging tether on, allowing other utensils to piggyback. Everything for your daily needs, from combs to envelopes to fly swatters to raincoats. Interweaving between merchandise are handwritten notes, mementos, stories. Almost everything is added with coiling. Infinitesimal additions. What appeared like chaos, actually has its own order.





piecemeal growth

carpark-shed-garden-ecosystem
Tainan, 2015

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In a carpark for the surrounding residents, grows a shed-ecosystem with old ladders, treasured scraps, living plants and other creatures. During my repeated visits, I met their human companion, who told me that the ladders were discards from his workplace, for climbing telephone poles. He liked to collect wood for their fragrance, and even gave me a small bottle of a special kind, made into delicate shavings. Another morning, the whole family was engaged in a careful excavation of the piles, since the neighbours worried they were fostering mosquitos. Under rotting wooden boards, we uncovered eggs of geckos, which hunt mosquitos. I was gifted some.

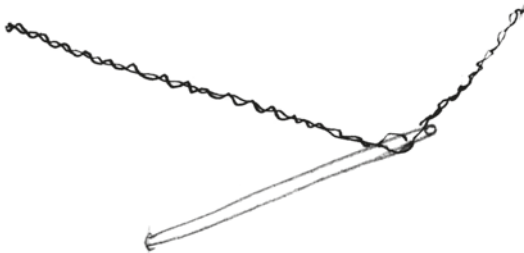
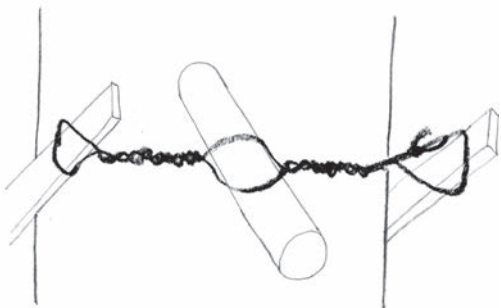


The whole structure was assembled without nails or screws, only through a twisting of wire (of various thickness, including telephone wire), which joined short pieces of wood sticks together, bit by bit, mimicking the growth of plants. Here, string, wire, roots, branches, plants alive and regenerating were entangled together in a porous co-existence. In Europe, I have seen 'insect hotels' in front of houses, as a response to the alarming dwindle of insect populations. People told me they become hotspots for insect-hunting birds, or wasps, which are already over-abundant. Here is an approach closer to permaculture, where the needs of human and non-human beings cared for simultaneously, in multiple ways. So many parking lots, so many possibilities...

By twisting two strands of rope with a stick, it is possible to create a tension system. Commonly seen in the wooden bucksaw, this may be applied in many other situations.

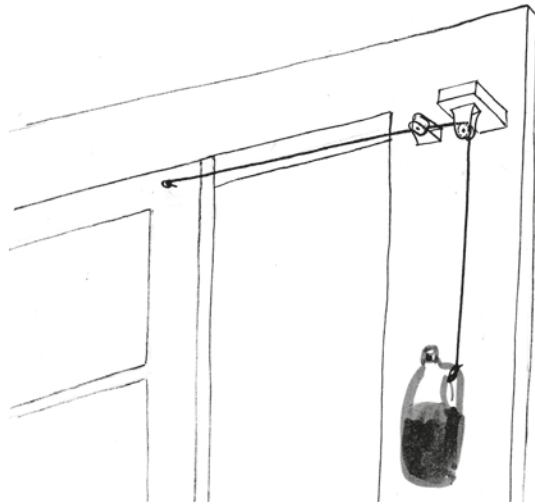


In a construction site, this tactic is used to hold the wooden mould for a concrete pole. Phnom Penh, 2014



Extending the rope and string, the twists could hold drying laundry, without pegs. By the footpath off a residential house, a long stick was made by joining two broom sticks through coiling around, anchored into a hole on the wall. Alternatively, a small tin can could be attached to the wall, as seen in the next neighbourhood. Mexico City, 2017





self-closing door
Pulleys were attached to the frame of the door. One end of the string is fixed to the sliding door, while a plastic bottle hangs on the other end, with just enough water to balance the weight of the door. The door closes smoothly after anyone walks through the restaurant. Chuncheon, 2015

At a fish stall in a street market, three bottles of water hang above a lampshade, made from a plastic tub. To stop the lamp swaying in the wind and as a chandelier? Taipei, 2015



outdoor ash tray
A large plastic vessel is cut and filled with sand. Holes in the bottom allow drainage. By the driveway of a motel. Rotorua, 2009

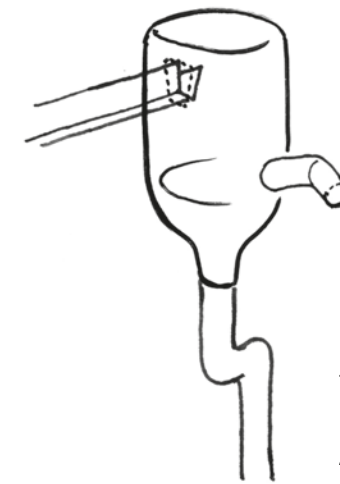
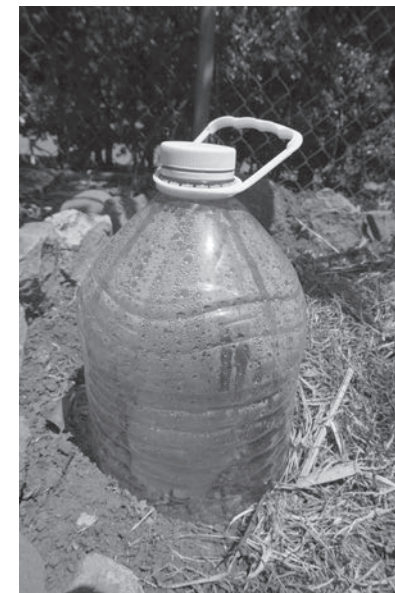


carrier tool-kit
This makes clever use of the contours of a soy-milk bottle with a handle, where the holes become compartments for holding and carrying electrical tools. Found in a parking lot. Tainan, 2015

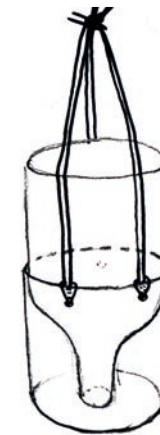


rainwater redirection
A large bottle becomes the perfect connection between the gutter of a car port and a down pipe. An extra spout is added in case of excess water, for the pot of lily growing next to it. Holes were cut and the pipes joined with silicon. Tokyo, 2014

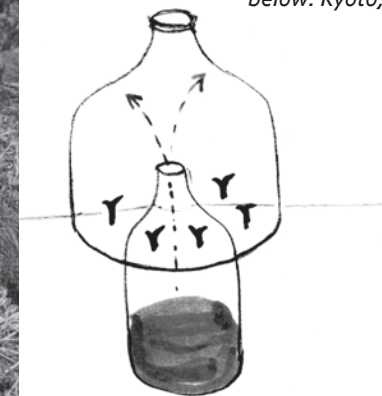
mini green-house
An open bottle is buried in the ground, which can be filled with water. Another 20L bottle with the bottom cut out is placed on top. The slow evaporation of the water below allows even irrigation of the seedlings under the bell jar. Also stops snails and slugs. Found in a community garden. Mexico City, 2017



self-watering hanging pot
A bottle is cut in half. The top part is inverted like a funnel into the bottom. String is attached to the bottom part to enable hanging on the holey wall (page 12). Phnom Penh, 2014



totem bottles
In a small street, three bottles stack on top of each other, rocket-like, telling drivers there are delicate plants below. Kyoto, 2016



Yellow, green, red, silver bottles, formerly containing machine oils, now full of air, hug around a pole at the entrance of car-repair workshop. Mexico City, 2017



Bottles of water often cuddle around poles and corners to avoid driving mishaps in this neighbourhood. Note the intricate weaving pattern made with ropes around the bottle caps. Tokyo, 2014



'The process of arriving in a house, and leaving it, is fundamental to our daily lives; and very often it involves a car. But the place where cars connect to house, far from being important and beautiful, is often off to one side and neglected.'

In *A Pattern Language*, first published in 1977, Alexander et al. suggested the following on car connections for private houses:

'Make the parking place for the car into an actual room which makes a positive and graceful place where the car stands, not just a gap in the terrain. Make it a positive space—a space which supports the experience of coming and going.... It may be achieved with columns, low walls, the edge of the house, plants, a trellised walk, a place to sit. A proper car connection is a place where people can walk together, lean, say goodbye.'

27 years later, parking places have grown. Rebecca Solnit realised, in a farcical comparison of the L. A. Getty Museum's car-park to the hell and heaven in Dante's *Divine Comedy*:

'The world seems to be made more and more of stuff that we are not supposed to look at, a banal infrastructure that supports the illusion of automotive independence....' At least, where she was: 'Los Angeles consists mostly of these drably utilitarian spaces, in part because cars demand them, and it is a city built to accommodate cars.' ('Check out the parking lot', in *London Review of Books*, 2004)

I have not been to L.A., but in my wanderings around Asia, I have found small touches which showed the human(e), from the caretakers of these 'banal infrastructures'.

On a sloping footpath by a driveway, rubber strips from tyres have been screwed around the gully, to prevent slipping. Seoul, 2013



I came across Chris Berthelsen's research project, 'Fixes: the non-intentional landscape of Tokyo', through an image search for 'Tokyo tyre park'. There it was, a blue tyre jutting out of the low concrete wall of a driveway, making the entrance more visible and distinguished from its grey surroundings. I have since come across similar aids for driving in corners around Kyoto: multiple mirrors on a pole, CDs and reflector eyes on rocks.





driveways of care

I was initially intrigued by the road cone extensions, with colourful stripes resembling sculptures. (Recently their sisters were found in Hamburg, in a driveway frequented by large trucks.) Looking closer, I discovered these extensions were made from printed plastic posters, bound together with insulation tape, thus the banding stripes. Down the road were other improvisations on the road cone, such as one sitting on the base of a former wheelie chair, adding extra stability and mobility.

Venturing into the parking lot, I discovered more transformations of used posters: rolls of them woven together with string by a wall, acting as holders for cleaning tools. One corner of the parking lot was used to store these materials. Looking up at the shelter for this, I was awed by a string that runs across the entire parking lot, linking one corner of the rain shelter to the building on the other side. It seemed to have endured quite many months. On the way out, I arrived at the caretaker's cubicle, and all of this made sense: here is someone with a knack for making stuff and caring for the situation: a lampshade out of an old plastic bottle, a chunk of Himalayan salt as a welcoming statue, a lighter for the smokers by the window. Plenty of personality, without even meeting the caretaker.



Hamburg, 2018



Self-supporting units extend the possibilities of activities afforded by existing spaces and infrastructures. They borrow spaces temporarily—without paying rent nor acquiring ownership. Often they involve moveable kits and things on wheels. Atelier Bow-Wow called them micro public spaces: ‘an object resembling the stage setting used in theatrical productions, a device to enhance shared activities and human encounters in public space. They occupy a middle ground between tools and architecture.’

A familiar form in industrially-advanced societies are kits for picnicking and ball-playing, as seen along the edges of water and grassy areas on summery days in Hamburg. In Berlin, I once visited the Thai Park, where on Sundays in the warmer months, enterprising locals from Southeast Asia bring their portable kitchens and cook delicious street food; while the other locals bring their chilly bins of beer. Others come with their picnic blankets, family, friends and music. When it rained, people huddled under the tarpaulin, in a convivial atmosphere between strangers and future-friends.

promenade soccer kit
Plastic plumbing pipes
assembled into goal, with
broken bricks as weights.
Phnom Penh, 2014



skating adaptive
A slide with wheels, fitting to
the height of the steps along
the promenade.
Geneva, 2014



Floating around the historic city
centre are blocks of polystyrene in
potato sacks: yellow, green, red.
They seem to stimulate impromptu
street performances. I arrived just
as one ended, into an atmosphere
of resonating joy. Ljubljana, 2013



A large bottle filled with
water, some freshly-cut
grasses and thin sticks, a few
sheets of newspaper, a ledge
around a well in the middle
of a piazza. Those are all one
need to start making and
trading hand-crafted insects.
Venice, 2013





At an outdoor market, this moveable feast offers grilled fish and shoju, as announced by the polystyrene signs and hanging dried fish. Chilli bins and suitcases provide seating. Seoul, 2013



Portable bar outside a market, where a shopping trolley has been modified to sell drinks and collect empty bottles. The shelf with holes are perfect holders for plastic cups on the go. Mexico City, 2017

Elsewhere, mobile kitchens could be found to be part of the daily urban fabric, depending on city regulations. In Mexico City, I was totally enchanted by the shout of 'tamales', and the whistles of the nomadic chimneys offering steamed potatoes. In Phnom Penh, a lady who sings 'nyong men jong' every morning and walks through our building with two earthenware pots of fresh rice noodles and green curry soup. In Taipei, the smell of roasting sweet potatoes always catches me before I encounter its nomadic oven.

Tools for scraping coconut flesh and scaling fish, made from pieces of wood with nails and beer bottle caps. Also on offer was knife-sharpening with a stone. Phnom Penh, 2014



knife-sharpening on the go
This bike has been re-engineered to allow backward pedalling, powering a motor connected to stone wheels. The sharpening mechanism can be detached, allowing regular use of the bike. Mexico City, 2017



park activation stations
Geneva, 2014

Pré en bulle is a non-profit association that creates and hosts bike activity stations, roaming around the parks in the city during the warmer months. The activities range from circus play, tea-making, bike repair, screen printing, music-playing. Anyone may join in, especially the curious.

One of the hosts, in a clown-suit, told me that the council had called out for ideas on how to make the local parks more vibrant, and they proposed this, which was accepted. They are paid for the time they are at 'work', even though it felt more like play, doing what they love. The actual running is self-organised, without much council intervention. 'The hardest part is deciding what new station to make each year, because we all have so many ideas!'



These involve a combination of soft and rigid materials. They create outdoor rooms, using light and portable materials. Often, a tarpaulin grows out of a stable vertical, like an existing wall or a parked vehicle. A stick props it up, which is stabilised through anchoring: propped against a corner, into a hole in the ground, or with rope anchoring.

In a side alley, a family sells freshly cooked egg-tarts. The top of the tarpaulin attaches to the wall through a bamboo stick and coiling wire. The diagonal poles simply rest against the foot of the wall. Phnom Penh, 2014



Rope, running from the top of the stick / edge of the tarpaulin, tied to either

- existing street furniture and fences; or
- a metal ring or hook planted in the road surface; or
- a portable weight, like a tyre filled with concrete with a metal ring sprouting out.



Gaps between the pavement form an anchor with rebars, for a mobile restaurant. Phnom Penh. 2014

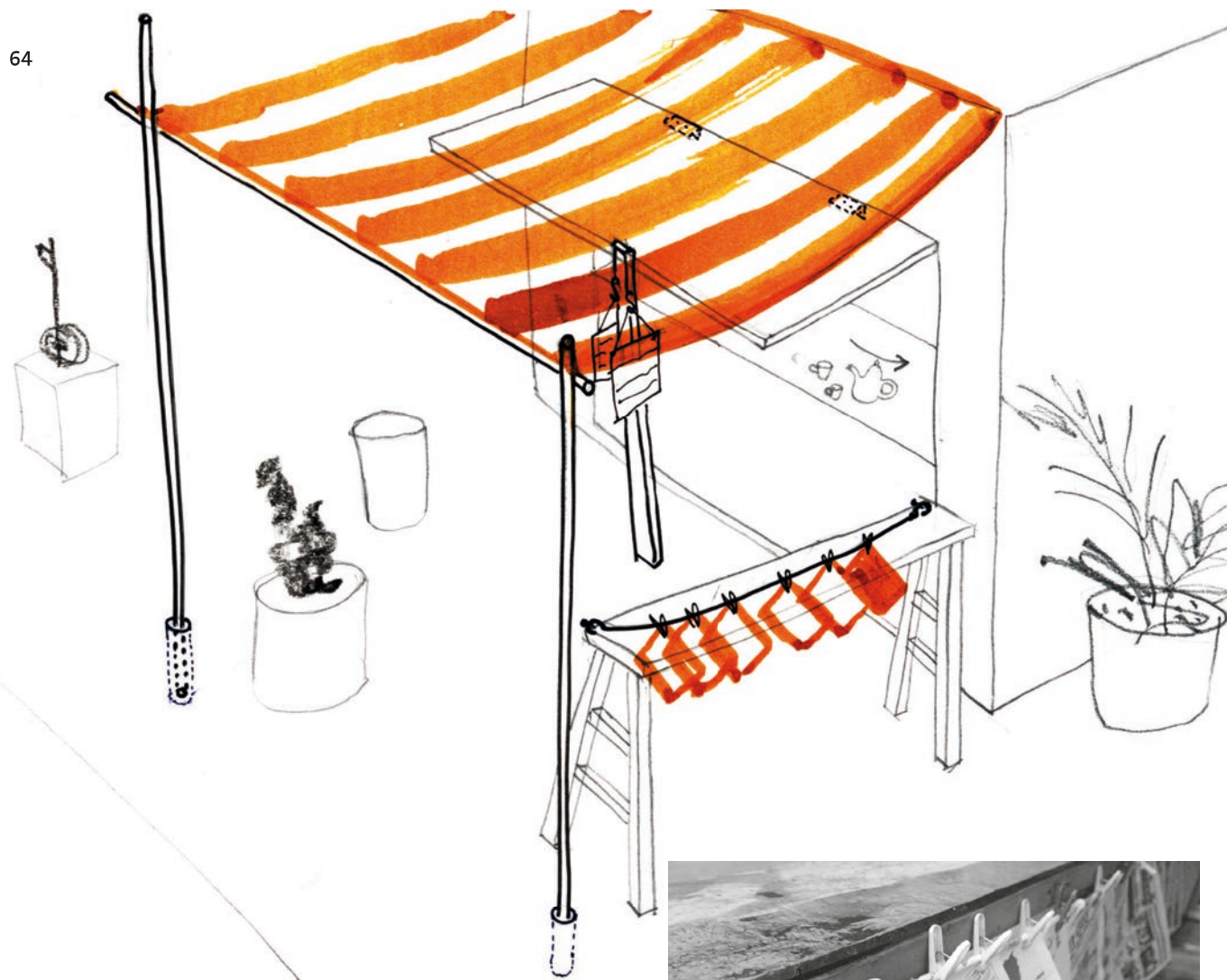


A shelter for flowers and home-made cactus pickles, outside the neighbourhood market. Maria has been coming here everyday for twenty years. The shade extends out from hooks on the wall, and the string is anchored to metal rings planted along the road surface.

A similar flower shop grows out of a tin shed around the corner, with the shade anchoring to the existing metal rails and a paint bucket. Mexico City, 2017

Temporary construction is a permanent phenomenon.





extending conviviality

Coffee and drinks, printed publications, playful kits hanging on poles, a waist-height table for perching around. A space for gatherings and chance encounters, without an intimidating door to walk through. All seem like a perfect platform for an artist-run space to me.

The holes on the ground for the bamboo poles were made by digging out the existing pavement, inserting a small section of blue plastic plumbing pipe, then refilling around it with concrete.

Phnom Penh, 2014





Chairs from roughly hewn wood add a sense of forest craft to the urban air in a park. Malmö, 2014



*baumscheiben (tree grates)
In certain neighbourhoods of Berlin, a local regulation allows and encourages the modifications of the space immediately around the trees along the footpath. Walking around, I found a variety of seating, made from pristine and salvaged materials, accompanied by different plants. Berlin, 2013
In Hamburg, I have observed similar constructions outside kiosks and kebab shops.*



A tree becomes a place to dwell, dream and swing with these simple additions made of wooden planks. Auckland, 2010



*frugal deluxe couch-suite
In a backyard beside a river, this was conglomerated from drift wood, wooden bed-frames, breeze blocks and slabs of stone, all tied together with wire. Taichung, 2013*



The canal in front of the Hamburg University of Fine Arts (HFBK) is clean enough for water lilies and fish. In warmer days, there are often people fishing and sitting along the bank. This structure was freshly made last spring. The older platform was relegated to become a sitting spot further down the bank. Hamburg, 2019



Here is a park in Tainan, the ancient city in southern Taiwan. My local guide said this is an area where many retired soldiers and their families live. The army life gave them handy skills, apparent from the handmade constructions from salvaged materials. An intricate tree house, a puppet theatre stage, steps made from bricks bound together with rope. Who says children are the only ones allowed to play? There were no permanent additions, everything could be removed, if needed. 2015



On a small mountain near Kaohsiung is a handmade gym. Health is important, especially if you are retired. Rather than joining a gym, how about making one yourself in your favourite hang-out spot? Props were made of bamboo bound together. An old PVC water tube attached to a bench became footholds for sit-ups. Even a clock on the tree to know when to go home. 2015



In this street corner, I discovered a miniature world on the edge of a parking lot, bringing unexpected pleasures for anyone who notices. Even better, its miniature landscape is rustic, an architectural ruin, yet constantly regenerating — a simulacrum of the bigger landscape around it. The liangting (Chinese pavilion) had been mortared down, so no typhoon could take away the resting spot for the tiny wayfarers. Various shells and pebbles were set around the conglomerate, jewel-like. There is the remains of what looked like a ceramic hippopotamus, now on the way to becoming an amphitheatre, with an acacia seedling sprouting out of its hind leg, and a mossy hill in its torso. Taipei, 2015



Dedicated to the maker-user-carer-hackers of
the world

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Inspiring projects:

*A Pattern Language. Towns, Buildings,
Construction.* Christopher Alexander, Sara
Ishikawa, Murray Silverstein, Max Jacobson,
Ingrid F. King & Shlomo Angel. Oxford
University Press, 1977

Architecture Without Architects. Bernard
Rudofsky. MoMA, 1964

Borrowed City: Motoelastico. Marco Bruno,
Simone Carena & Minji Kim. Damdi, 2013
cargocollective.com/borrowedcity

*Fixes: Investigating alterations of space/objects at
the public/private boundary in suburban Tokyo.*
Chris Berthelsen. a-small-lab.com/fixes

Home-Made: Contemporary Russian Folk Artifacts.
Vladmir Arkipov. FUEL Publishing, 2006

Low Cost Design. Daniele Pario Perra et al.
Silvana Editoriale, 2011. lowcostdesign.org

Made in Tokyo: Guide Book. Junzo Kuroda,
Momoyo Kaijima, Yoshiharu Tsukamoto.
Kajima Institute Publishing Co., 2001

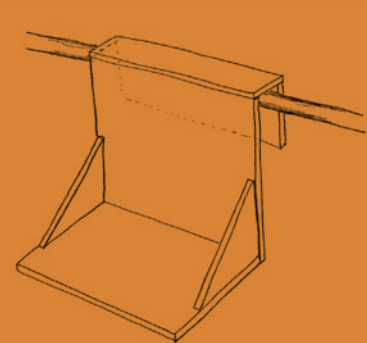
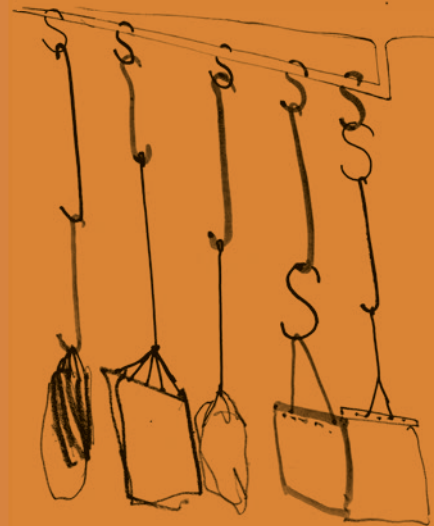
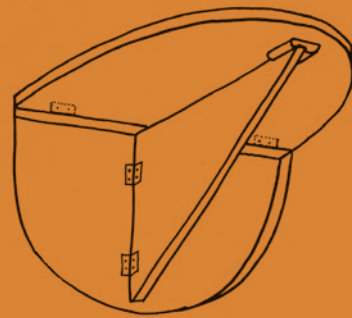
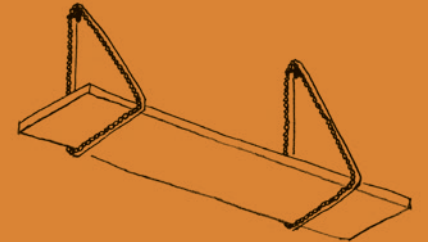
Milieu et Techniques. André Leroi-Gourhan.
Albin Michel, 1945

Objets réinventés: La création populaire à Cuba.
Ernesto Oroza & Penélope de Bozzi.
Alternative, 2002

Architecture Reading Aid Ahmedabad. Leonard
Wertgen, Marius Helten & Niklas Fanelas.
Ruby Press, 2015

Spaces of Uncertainty. Kenny Cupers & Markus
Miessen. Müller + Busmann, 2002

*Tacit Urbanism: Hawkers and the production of
space in everyday Kolkata.* Christopher Dell.
Post Editions, 2009



patterns of resourcefulness:

urban epiphytes

street-sign orchid hammock

nests for sharing

wrinkling flatness

sandwiching around

collapsible brackets

soft brackets

bike chain shelves

non-standard modularity

holey walls

rail-side garden

hinges, folding

window into a store

corridor into a room

driveway conviviality

coiling around

extending poles

rain protection

avocado harvest tool

open living room

coiling & hanging off

hooks & systems

paired hanging

hooks on hooks

fragrant gate

flower facade

segmenting straight lines

wire clothes hangers

notching

multiplying

bracketing

spiralling

twisting

whorls

racks revamped

nomadic fragrant softness

weaving through gaps

soft around hard

hard around soft

weaving growing

Dammtor garden

mountain potato shelter

coiling around & twisting

piecemeal growth

fractaling cart

carpark-shed-garden-ecosystem

spanish windlass

bottles in new situations

carrier tool-kit

self-closing door

rainwater redirection

mini green-house

self-watering hanging pot

human(e) edges

driveways of care

hugging bottles

blue tyre driveway

parking lot with personality

mobile units

promenade soccer kit

skating adaptive

carts & modified bikes

tensile structures

extending conviviality

local seating

co-caring

delight of scales

collated by xin cheng

