

# GARDENING FROM ZERO



Robert Alcock describes a riverside community garden created, almost literally, out of nothing.

**A**fter five years in Bilbao, Spain, in many ways we counted ourselves lucky. We were living in a unique place, the Zorrozaurre peninsula: a genuine community, a real ‘urban village’ of 450 people, with abundant wildlife along the river amid industrial ruins, just minutes from the city centre. We had succeeded in creating from scratch the city’s first ever citizen-led forum, to debate the redevelopment of the area and promote sustainability.<sup>1</sup> We had extracted concessions from the town hall, notably the preservation of the existing houses.

But for all the talk, effects on the ground were all but invisible. Burnout had begun to set in: too many meetings, too much talk. One of the most alienating features of urban life is our inability to directly influence

our surroundings, without having to seek permissions or employ professionals. Yet I believe that to be happy you need to be creatively engaged with your environment, in a practical and physical way.

We had already got together with neighbours to create a riverside container garden on a narrow concrete platform between a busy road and an unprotected drop to the river. Apart from the uneasy feeling this gave it as a social space, it was a serious hazard for our daughter who was just starting to walk. ‘I wish we had a real garden’ became one of my most frequent moans.

After looking for possible sites all over the neighbourhood and even beyond, I realised that the solution had been staring me in the face all along. In September 2005, I decided

*Above:* Showing off the completed garden to a bike tour of the neighbourhood.

*Below:* The tyre planter garden under construction.

to expand the garden onto an adjacent platform, roughly 6 x 6m (20 x 20ft), which juts out over the river. I had initially rejected it because it had almost none of the attributes you would normally associate with a promising site for a garden. Consider the following list and you’ll understand why I call this ‘gardening from zero’.





## SITE LIMITATIONS

### *Harsh climate*

The site is exposed to drying sea winds and a temperatures that regularly reach over 35°C (95°F) in summer. Air pollution can also be a problem. On the plus side, there is ample rainfall (more than 1,000mm / 39in) though mostly in autumn and winter, and frosts are rare.

### *No water supply*

The river is brackish; tap water would have to be carried down three flights of stairs, and in any case is highly mineralised and thus bad for the soil.

### *No soil*

What little soil there is locally is contaminated, apart from what we have imported or created via composting in the existing small garden.

### *No security*

The site is an unenclosed concrete platform over a river, on a busy road, open to passers-by, and not far from a night club whose patrons are notorious for vandalism. Also there is no legal title, although nobody has ever come along to challenge our squatters' rights.

*Above:*  
The garden at the time of writing. The large pink flowers on the left hand side belong to *Carpobrotus edulis*.

*Below:*  
A snowman, in Bilbao!



Aside from this we had our own limitations to consider:

### *No time*

Well, hardly any, between child-care, jobs, writing, and residents' meetings – and even less when, just after implementing the garden design, we embarked on a house-building project... but that's another story.

### *No local support*

Even those neighbours who were already involved thought it would be too hard to maintain a bigger garden. Others were concerned about presenting a scruffy image, or about the composting attracting rats and flies.

### *No specialist knowledge*

Permaculture designs often seem to require daunting amounts of knowledge about plant varieties. Lacking such knowledge, I would have to let the plants make their own design.

### *No money*

Well, we could have spent money on materials, but using only free local resources was more fun, less hassle, and would ultimately lead to a design that was more likely to be replicated by others.

## DESIGN & IMPLEMENTATION

Once I decided to take on the challenge of 'gardening from zero', the practical aspects of the design came easily. With no water supply, we would need to store rainwater somehow. The solution was to use large planters filled with absorbent material, which would have to make do instead of soil. Stacks of inside-out tyres (see 'Making The Most Of Tyres' later in this article) would do nicely for containers; arranged around the outside of the platform, they would also be a soft, child-friendly wall and a windbreak. The tyres were bolted down for security – the bolts being the only element we had to buy.

Making the tyre containers took a couple of weekends, and the main objective of providing a safe outdoor space was achieved more or less straightaway.

The planting material was whatever could be obtained locally – mostly this consisted of wood shavings and sawdust from a nearby carpentry workshop, mixed with other organic material and topped off with compost and soil from the existing garden. The idea was that with time, and top dressings of worm compost, the material would break down into something resembling soil.

With no specialist plant knowledge and little time, I planted randomly with whatever I could get hold of, including cuttings and seeds from plants already growing in the garden, plus about 50 different varieties of vegetable, flower and herb seeds that I had accumulated over the years. Add a few chairs that were going to waste and an improvised table from a cable reel, and it was time for the finest part of any gardener's work – sit back and watch.

## THE GARDEN IN USE

The tyre containers turned out to be pretty much vandal-proof. Well, one tyre got thrown into the river, but it must have been hard work, because they left them alone after that. We lost chairs regularly at first, but eventually that stopped – maybe because the vandals liked sitting in the garden too.

The first crisis came with a fierce drought in the spring and summer of 2006. Almost all the plants died, and the neighbours started complaining again about how ugly and scruffy the new garden was. We cleared the dead plants away and planted cuttings from some that had survived, like ice plant with its eye-catching giant pink flowers.<sup>2</sup> This and other rambling succulents seems to be the perfect early-successional plants for our harsh environment, providing ground cover and protecting the tyres from the sun.

As well as the succulents, which also include yucca and sedums, we now have bulbs like garlic and daffodils, and self-seeding annuals, especially marigolds, as well as a small laurel bush – the first representative of the woody perennials that should be our eventual climax community... More plants keep arriving. We have even harvested a few tomatoes and potatoes – which sprang from incompletely decomposed kitchen waste – as well as wild spinach, a blow-in.

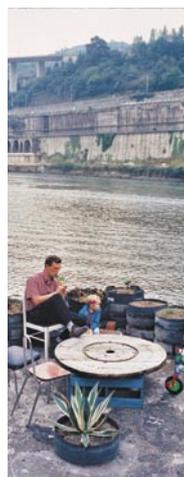
But growing food was never the main purpose. It's really about people: our daughters (now we have two) who love to play in the garden, pick the flowers and taste the leaves; neighbours who gather there for a drink, to chat and play music; passers-by who sit there to read the paper; fishermen setting their lines. Last year the garden was used as a case study in an Urban Permaculture workshop with Patrick Whitefield, and it has also become a stop on our guided tours of the barrio.

It's also about hope. The success of our garden has given me fresh hope for this damaged place and for our sick planet. I like to think that even the youths who used to throw our chairs in the river have found a fragment of hope in the garden. And I hope our 'garden from zero' may inspire other would-be urban permaculturists to create gardens in unlikely places.

## MAKING THE MOST OF TYRES

Tyres (US 'tires') are conventionally seen as a gigantic waste disposal problem. For every citizen of an industrialised country, there are about ten waste car tyres sitting around in landfills, and one more is produced every year. Dumped tyres are a fire hazard and they also collect stagnant water where mosquitoes can breed, so tyre dumping is now illegal in most countries. Conventional recycling uses capital intensive machinery to convert tyres into tyre chips, which can be used in construction or as a fuel.

On the other hand, from a permaculturist's point of view ('the problem is the solution'), tyres are a key resource for creating a sustainable future in the 21st century. They are free, sturdy, vermin-proof, virtually



*Above:* Making music during a drought.

*Below:* The author presents the garden as a case study during an Urban Permaculture workshop with Patrick Whitefield (third from left).

indestructible containers: designed to hold air, they can be used to hold almost anything: compost, soil, rocks (for foundations and retaining walls)...

Having taken the trouble to find your tyres and haul them to your garden, it's worth putting a bit of work in to make them better. Tyres should always be cleaned before use and checked to make sure there are no sharp objects stuck inside.

Tyres come in different sizes. They are all marked with two numbers on the sidewall, like this: 205/65. The first number represents the diameter and the second the thickness. It's worth making sure that you are using tyres of compatible sizes – don't stack big ones on top of little ones!

The best way to use tyres as planting containers is to turn them inside out. This gives a flat bottom and makes the tyres higher and wider, giving more useful volume per tyre. They no longer collect water, and best of all, they no longer look like tyres (much). They can also be stacked up to give a greater depth of soil. I've tried to work out a system of slots and flanges to lock the stacked tyres together, but so far with limited success.





**Above:**  
Step by step  
sequence for  
cutting a tyre  
and turning it  
inside out.



**Left:**  
The author  
and daughter  
with cut and  
inverted tyre  
ready for reuse  
as a planter.

*The pictures on  
this page can  
be viewed in  
greater detail by  
visiting: [www.zorrozaurre.org/  
twiki/bin/view/  
Media/Tyres](http://www.zorrozaurre.org/twiki/bin/view/Media/Tyres)*

## TURNING TYRES INSIDE OUT

Tyres are best worked when warm (very stiff when cold).

1. Remove one sidewall. Almost all tyres contain steel belts which make it nearly impossible to cut across the tread. However, the sidewall is another matter. It can be cut through with a sturdy, sharp knife. This is easiest if you gently pull apart the cut with your other hand. Water can be used as a coolant / lubricant.

2. Once the sidewall has been cut off, turn the tyre over onto its open face. Now stomp on the tyre to flip it inside out at one point of its circumference.

3. Work this inverted section around with your hands and feet until you've got almost half the tyre inverted, and can't go any further.

4. Now the tricky bit: Fold the inverted section over and put your weight on it. This will allow you to work the rest of the tyre around with your hands.

And there you go: an inside-out tyre ready to use 

## FURTHER READING

*Tire Recycling is Fun* by Paul Farber, loads of tyre-recycling projects and information about using tyres. [www.tirecrafting.com](http://www.tirecrafting.com)

*Scrap Tire Recycling* by Kurt Reschner, extensive information about conventional tyre disposal and recycling methods. [www.entire-engineering.de](http://www.entire-engineering.de)

More information about container gardening with tyres can be found at [www.zorrozaurre.org/  
twiki/bin/view/English/Tyres](http://www.zorrozaurre.org/twiki/bin/view/English/Tyres)

<sup>1</sup> See PM45, 'Creating an Eco-Community in a Post-Industrial Wasteland', Autumn 2005; see also the website of the Forum for a Sustainable Zorrozaurre: [www.zorrozaurre.org](http://www.zorrozaurre.org)

<sup>2</sup> *Carpobrotus edulis*, also called *Hottentot fig* for its South African origins and its edible fruits – a true permaculture plant! It seems well suited to urban environments which are hot, dry and lacking in soil. In some places it's considered an invasive weed, but could it just be doing its best to protect damaged land?

## TOP TIPS FOR CREATING YOUR OWN URBAN GARDEN

1. Gardens are an urgent necessity for life. Nobody needs to give you permission to create one, as long as you don't inconvenience anyone else's legitimate activities.
2. Public space is your space, too. All cities have areas of public space that are dead, unused or underused. These are prime sites for DIY urban gardens.
3. It's better to work together with others, but someone has to go first. If you can't get anyone else's active support, go ahead on your own. The garden itself will convince people.
4. Use free, locally available materials wherever possible. There is so much waste in our cities that there is seldom any need to steal or buy anything. Taking seeds and cuttings in sustainable quantities doesn't count as stealing!
5. Don't worry about what you don't know, because you will learn by doing. If you don't know what to plant, start with what is thriving nearby.