

# SUSTAINABILITY, RECYCLING AND REDEFINING

STORY AND PICS: SANDHYA SUNIL MAILDM

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**ABOVE**  
Timber detail on the High Line with buildings flanking the park.

**W**hen we read or hear about sustainability with respect to the environment, what comes to mind is how biological systems remain diverse and productive. But thinking beyond that, sustainability and recycling are linked by the way objects or spaces are redefined and engage. In this context, the landscape emerges as a medium that can initiate the spatial, economic and cultural resurgence of once abandoned urban cores, or inject qualities of urbanism in places deprived of a traditional expression of it. Recycling a space is not an aberration or an afterthought, but rather a deliberate act of creativity.

I include iconography in the same breath as recycling or re-purposing. Iconography is an important aspect of recycling spaces and referencing their origins, making for coherent links. Alejandro Zaero-Polo describes use of iconography as 'form with a double agenda'<sup>1</sup> which assumes the role of a communicator.

Here I explore two case studies which embody these principles.

## The High Line, New York City

The High Line could be considered a mile-and-a-half-long recycling project. It is now a public park that's been built on a disused freight rail line elevated above Manhattan's West Side streets. It is a former industrial structure given new life as a public green space. This project has served as a model for adaptive reuse and sustainable practices for parks and planning projects around the world.

### Design and Construction:

Considered to be the world's longest green roof, the High Line's landscape uses the same technology as a green roof, and has the same environmental benefits: a reduction of storm-water runoff by up to 80%; a mediation of the heat island effect created by hard, reflective city surfaces; and plantings that create shade, oxygen, and habitat for various fauna.

There are numerous points of reference to its origins as a rail line. The seats have wagon wheels, the concrete paving sculpts into railway sidings, the railing is patterned like tracks, and the old train tracks are blended beautifully into the landscape. As you walk along it, you are conscious almost at all times that you are on a rail line. Sometimes you can't help check over your shoulder to make sure there's no train coming from behind!



### TOP TO BOTTOM

Architectural detail and grasses in winter; sculpture on the High Line.



### Materials:

All materials brought in for the landscape, whether concrete, steel or wood, were selected based on life-cycle costs to reduce the need to replace and dispose of materials after a short time. The wood, for example, is an FSC-certified hardwood.<sup>2</sup>

In some cases we'd be better off reserving disused infrastructure for its original or related purpose rather than redeveloping it as a park or something else. Sydney's new light rail line from Central to Dulwich Hill was feasible because it largely uses an abandoned rail line. Likewise, the extension of Melbourne's Epping rail line to South Morang uses the alignment left over from a disused track. It's likely that re-using these reserves for new rail lines gives a higher social return than it would have if they'd been developed as (say) linear parks. Landscaped walking and cycling trails are valuable in their own right. It isn't necessary to wait for the rare occasions when infrastructure is no longer needed for its original purpose. We can build paths now if we want, including elevated ones like the High Line. They make sense for walking and cycling because these are modes where the quality of the journey itself matters much more than it does for driving. Much of the appeal of the High Line comes from the novel perspective of the city it provides.<sup>3</sup> The success of the High Line is further enhanced by the unique architecture that lines the park. It all melds together - the landscape, the built forms edging it and the vistas afforded along pause points. →





## Sydney Coal Loader Centre for Sustainability, Waverton

The recycling of this site was possible because the local community actively sought its preservation and saved it from a commercial redevelopment. 'The project demonstrates a suite of sustainability 'ticks' including retrofitting existing built form'.<sup>4</sup>

### Design and Construction:

The Coal Loader site has been transformed from an ex-industrial one to a place where you can be inspired by truly functional sustainable practices. The Coal Loader operated from the early 1920s to the early 1990s, primarily as a transfer depot for coal from bulk carriers to smaller coal-fired vessels.

The new Centre for Sustainability showcases concepts that include stormwater harvesting; energy and water-saving technology; best-practice architectural refurbishing; use of solar power; low environmental impact materials and recycled materials.

### Materials:

A minimum of 95% of timber used in the refurbishment is either post-consumer recycled or FSC certified. Rain water harvesting takes care of a major part of the water usage. Solar panels not only generate electricity but also

### CLOCKWISE FROM TOP LEFT

Raised boardwalk preserves the terrain and allows for viewing of rock engravings; Icon 1: Hoist and crane integrated into the structure; Icon 2: Anchored; Tunnels with access to Balls Head Reserve.

reduce greenhouse gas emissions by some 2.7 tonnes annually. Natural ventilation with the help of wind-assisted turbo ventilators help in keeping the place cool. Details like paint used in the cottage, which is 100% VOC free, make for a holistic approach to sustainability.

There is a lot of historical heritage that has been preserved and displayed by well designed signage. 'With this project the local community is provided with a meaningful and comfortable place to be proactive about implementing positive action on sustainable practices'.<sup>5</sup>

Recycling spaces doesn't mean we rush to redefine a disused space. It has to fulfil a need that is felt by the community either occupying it or intending to use that space. Otherwise it'll fizzle out after the grand opening ceremony. Talks of converting Sydney's monorail to a 'High Line-like park' may not work as the very reasons for removing it are probably because it is inconvenient, unsightly and irrelevant. LO

### REFERENCES

- 1 <http://archinect.com/forum/thread/33493/>
- 2 <http://www.thehighline.org/sustainability>
- 3 <http://blogs.crikey.com.au/theurbanist>
- 4 Landscape Architecture Australia No/136
- 5 Landscape Architecture Australia No/136