



Start with the grasslands

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Abstract: Design is critical for maintaining the integrity of grasslands within the urban context. Consideration of the grassland edge and a grassland's urban design context can minimise weed invasion, regulate nutrient and water inputs and provide the sort of 'cues to care' that minimise vandalism and dumping while promoting the positive human engagement that builds future stewardship. *Start with the Grasslands* is a set of design guidelines Adrian has been developing through the Victorian National Parks Association (VNPA) and the Australian Institute of Landscape Architects (AILA).

This talk is not about the management of grasslands themselves, but how to design for the grasslands through urban design and landscape architecture. *Start with the Grasslands* is a document that I produced with the Victorian National Parks Association, in conjunction with the Australian Institute of Landscape Architects, Victorian Branch. It was a response to an urgent need for guidelines to help people understand how to help grasslands survive and flourish in the urban context. The guidelines in the resulting document were developed through extensive consultation with council people, land managers and ecologists over a two-year process.

We came up with a number of principles that I shall talk about, one at a time.

Principle 1. Start with the grasslands.

As Tony Adams said (this proceedings), it is necessary to get the planning in place right at the very start of any project, and admittedly this is generally not done. Everything, from the survey, to the archaeological record, and the allocation of adjacent land use, can have a considerable impact on people's interaction with a grassland.

Principle 2. Collaborate

Collaboration is important especially where there are so many stakeholders, especially in large greenfield developments in a place like Melbourne where this project took place. Compared to the ACT, there are more levels of government, and many more land owners and future stakeholders such as the community and land managers. I will be very interested to hear how people from the ACT react to these guidelines.

Principle 3. Integrate, protect, connect

In the photo (right), although the wooden fence next to Ngarri-djarrang (Central Creek Grassland) is not a good idea, it has been immaculately put into place by an enlightened council who oversaw the whole process very carefully so there has been almost no damage to that grassland. If it had been done normally that would have meant weed management for years as a consequence of digging post holes and other disturbance.

In the aerial image (right) you can see that this same grassland is in a typical urban situation for a grassland,





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isolated from the river corridor by a patch of houses that need not have been there, and a freeway, and so on.

The image at right, at Craigieburn, shows another way of integrating and at the same time protecting a grassland. This is the Golden Sun Moth Adventure Playground at Malcolm Creek. On a weekend there will be hundreds of children sliding down the equipment and playing there. The whole playground takes you right through the lifecycle of the moth, so there is a lot of interpretive signage. It is an excellent way of getting people engaged.



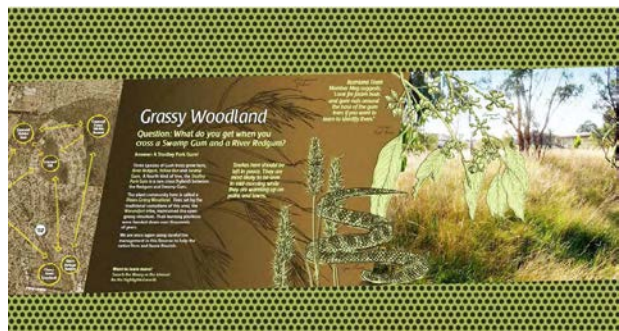
Principle 4. Design for maintenance

Designing so that maintenance can be efficient is very, very important; it saves a lot of money, especially when you have little money to spend in the first place. The nice thing about the edge in the photo (right) of the grassland at Caroline Springs is that the plantings are very low maintenance and they are simple for unskilled staff to look after. The granite gravel edge means that any weed that does pop up can be sprayed out of existence with no effort at all. It also suits the development style of the whole area.



Principle 5. Communicate

The photo (right) is an example of a suite of exemplary signs which occur across the city of Darebin. The sign is demystifying snakes, which we all know are such a terrible barrier to getting people into grasslands and loving grasslands. Brown is a base colour rather than the green of English hillsides, and the sign gives a lot of information and displays the context.



Principle 6. Let people in

Letting people in is also important. There have always been two sides to this argument: one is to lock the place up and not let people in because it is too precious; the other side is to create future stakeholders. The only way people are going to love grassland will be if they go in and look between the tussocks, and find the pretty little plants and the small wildlife such as crickets.

The photo at right shows Evans Street, Sunbury, which is one of the best grassland patches in Melbourne. It has an excellent





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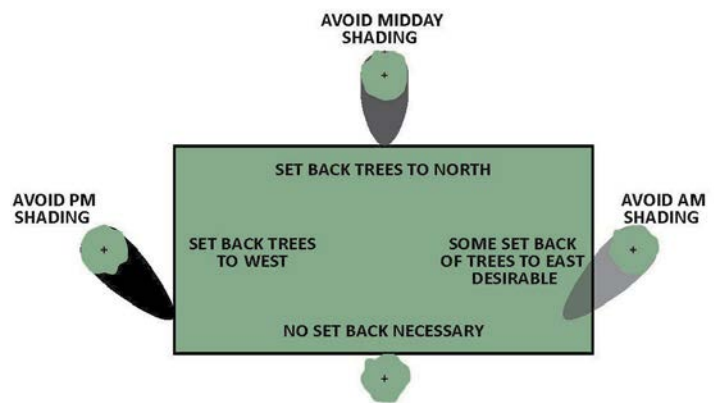
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shared trail beside it. It has a heritage-style fence. It has what will be a nice dense edge that will keep a lot of weeds and blown rubbish out; and it has stone mulch which is really good because that is not adding nutrients to the system. But the nice thing about Evans Street is the way the sign (photo at right) is placed in respect of the fence. It is inviting you into this space; you have to enter it in order to read what is on that sign. And once you are in there, there is a seat (photo below left) so you are encouraged to sit down and enjoy the space. There is also a small pathway along the edge. Again the signs are beautiful (close-up below right) and graffiti-proof, and there is a suite of them so you can go from one to another and you are encouraged to explore the grassland.



Another attribute of the Caroline Springs grassland (photo previous page) is the low-visible-impact fence that is easy to step over if you want to. Then there are the trees, which on the north and west sides may be too close. This is a problem because they are going to grow up and shade parts of the grassland, which will change the ecology. Trees need to be located with a geographic orientation so that this does not occur (diagram at right).



Raised walkways (photos below) are a way of bringing people right into the heart of the grasslands. If you walk along on a steel mesh path, you have no





fear of snakes and the mesh walkway lets some light and water through, so its impact on the grassland is smaller than that of other path systems.

Principle 7. Provide cues to care

Back in 1994 a landscape architect in America, Joan Nassauer, came up with the phrase 'Cues to Care', the general principle being that the more that you visibly show care for a site, the more people will think that that site is valuable. This is incredibly important for grasslands because, as we know, grasslands are often brown and monotonous looking and it is really hard to get people to see that picture of engagement. The answer is to create visible signs of care and invest in each of the grasslands, and in that way we can positively help the grasslands in the long term. As a corollary of that, the more visible the edge of the grassland the more care should be applied to that particular area.



The absolute opposite is the sort of thing shown in the two photos below. There are people living opposite this, so you can imagine how they feel about the grassland opposite them, about the cheap-as-possible fence, rubbish not cleared and shrubs that are so high that they block any view of the grassland. It is counter-productive and it creates enmity now and in the long term.



Small remnants can be great

There is a patch that we call Bunnings Carpark Grassland (above the road in the photo at right). It is about 30 m square and it is absolutely fantastic. It contains a species that is endangered in Victoria. The council says this is the easiest grassland they have to maintain; there is no weed invasion because there is not a blade of grass anywhere around it to invade!

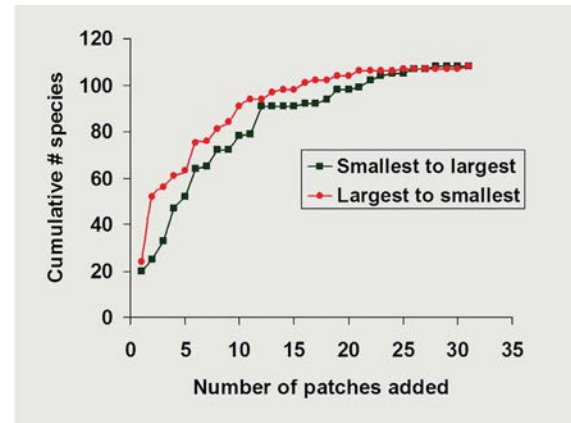
This brings me to the potentially great conservation value of small remnants. It is a fact that several of the species that exist in grasslands, such as the Golden Sun Moth





Synemon plana, do not need much space. You can easily have a 1 ha site that supports a lot of Golden Sun Moths and they can have been there for quite a long time.

Some of our best grasslands are the mini reserves along railway lines. They have large edge-to-area ratios, but if the grassland there is sufficiently dense and rich it tends to resist weed incursions. The graph (right), by John Morgan, shows that in a survey of remnant grasslands across Melbourne there were almost as many species in a given number of small grassland patches as in the same number of large grasslands. In other words, even small remnants help conserve regional biodiversity.



Edge effects

Edges are important. For example, houses fronting the street and backing straight onto grasslands create all sorts of gloomy dumping opportunities.

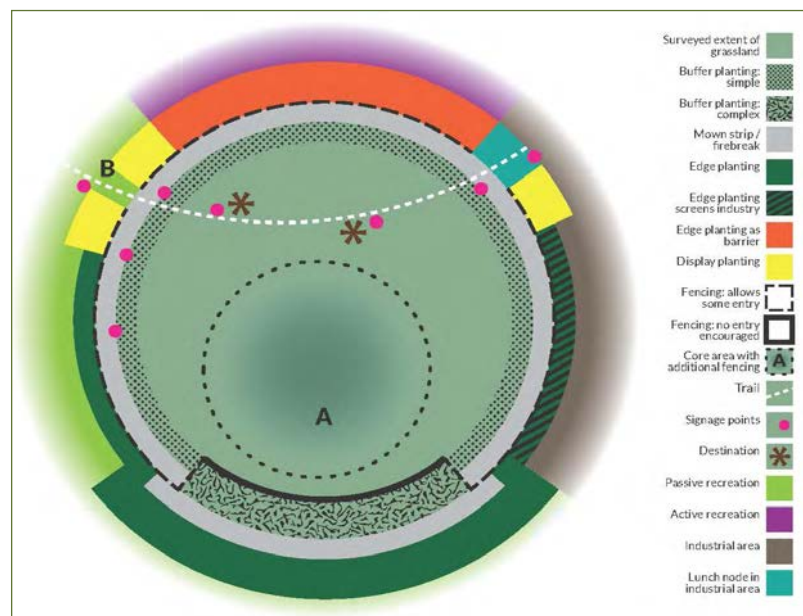
The thing to note in this photo of an edge strip (right), which is as wide as a road, is that the maintenance is terrible. The constant mowing is changing the ecological composition of that patch.



It is really important to think about what happens at the edge of the grassland,

which is what the enlightened people developing West Belconnen are doing (Adams 2015). We have all that infrastructure which helps preserve the grassland, like keeping the weeds out, stopping people from encroaching on the main strips near the fire break, and the decorative edge plantings. All of those pieces of infrastructure should be outside the reserved area of grassland. Time and time and time again in Victoria that sort of thing is located within the reserved area.

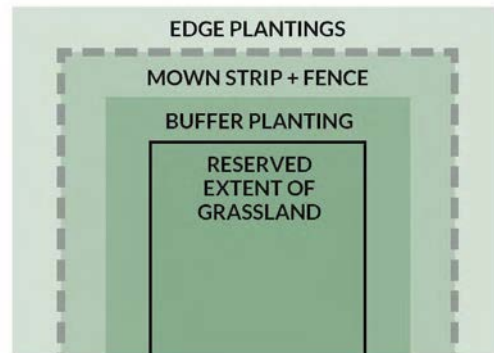
The diagrams at right and on the next page are examples of plans with good edges; that is, the boundary is away from the grassland so water is not carrying nutrients and pollutants into the grassland. There is also a planting of grass, usually the dominant tussock of the grassland. You can have a dog, you can walk. The other thing to notice about this diagram (right) is the public open space, which reduces the pressure on the grassland. Obviously, if you have open space



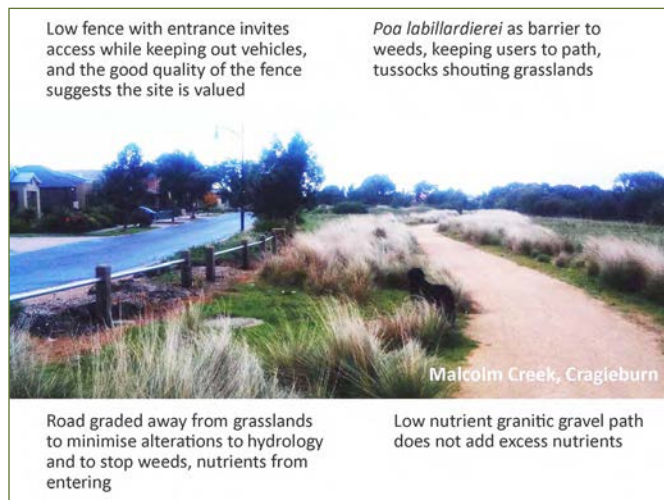


adjacent to grassland, people are not going to be slow to use that when they want somewhere to kick a ball.

Adjacent land use can have negative impacts on your grassland. To allow active recreation, you can create a buffer area that keeps people out of the grassland. If you have an industrial area, you can create a buffer area that screens that industrial area. If you have a core area that acts as a place with higher ecological values, then create a part away from that that becomes a place of destination and creates a decorative entrance, which then encourages engagement. You can thicken your buffers if you want to, to further protect the grassland.



The edge of a grassland is the boundary between two different management regimes or management cultures. An example is Malcolm Creek (photo right). The bush crew, the Council's dedicated people who look after the grassland in general, are also in charge of looking after the land either side of that path, but in fact they are not the best people for it. Along that part where there is a lot of quite decorative planting, the Council has found they are wasting the talents of the bush crew people – who are best devoted to bush care. It would be better for the standard gardening crew to look after that part. This issue is really a matter of planning the allocation of human resources rather than being a grassland problem *per se*.



Case studies and publication

The final version of *Start with the Grasslands* has a number of case studies in it. It is now up on the web, at: http://vnpa.org.au/page/publications/reports/start-with-the-grasslands-_-design-guidelines-to-support-native-grasslands-in-urban-areas

References

- Adams T. (2015) West Belconnen, ACT. In: *Grass half full or grass half empty? Valuing native grassy landscapes*. Proceedings of the Friends of Grasslands 20th anniversary forum, 30 October – 1 November 2014, Canberra, Australia. Eds: A. Milligan & H. Horton. Friends of Grasslands Inc.
- Marshall A. (2013) *Start with the grasslands: Design guidelines to support native grasslands in urban areas*. Melbourne, Victorian National Parks Association. <http://vnpa.org.au/admin/library/attachments/PDFs/Reports/Start%20with%20the%20Grasslands.pdf>

Adrian Marshall is a landscape architect who has been working with the Victorian National Parks Association (VNPA) and the Australian Institute of Landscape Architects (AILA) to develop 'Start with the Grasslands', design guidelines for integrating grasslands into the urban context. He is co-editor, with Nicholas Williams and John Morgan, of *Land of Sweeping Plains: Managing and Restoring the Native Grasslands of South-Eastern Australia* (CSIRO 2015), one of a set of Myer Foundation funded projects he coordinates at the University of Melbourne.

+ This record of the talk given at the forum has been checked by the presenter, but not peer-reviewed. To find out more, contact the presenter, via their institution or by email to: info@fog.org.au.