



Trees in a Changing Environment

Arboricultural Association, Exeter 2018

Trees in a Changing Environment

- introduction

What I'm going to talk about:

- The right tree for the right place
- The changing urban environment
- Who decides urban direction
- Tree Risk
- Urban ecology (trees), *and*
- What we do to our trees

Trees in a Changing Environment

- The right tree for the right place?

The right tree for the right place

Trees in a Changing Environment

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- The right tree for the right place?

The right tree for the right place

- As a concept, selecting the right tree for the right place is completely valid at the time of planting, but what happens if the right place changes?

Trees in a Changing Environment

- The right tree for the right place?



The Wooing Tree – Cromwell, NZ

Trees in a Changing Environment

- The changing urban environment

- The right tree for the right place
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Trees in a Changing Environment

- The changing urban environment

The changing urban environment

- World Health Organization (WHO) estimate that 60% of world's population will live in urban areas by 2030

Trees in a Changing Environment

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- World Health Organization (WHO) estimate that 60% of world's population will live in urban areas by 2030
- Greening our cities might be thought of as the archetypal urban sustainability solution

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- The changing urban environment



Dunedin. New Zealand

Trees in a Changing Environment

- The changing urban environment

The changing urban environment

- The dynamic nature of urban areas threaten the survival of trees and/or undermine their delivery of key benefits to society

Trees in a Changing Environment

- The changing urban environment



London, UK. Internet image

Trees in a Changing Environment

- The changing urban environment

The changing urban environment

- The dynamic nature of urban areas threaten the survival of trees and/or undermine their delivery of key benefits to society
- Climate change – the biggest environmental challenge of our time...

Trees in a Changing Environment

- The changing urban environment

The changing urban environment

- The dynamic nature of urban areas threaten the survival of trees and/or undermine their delivery of key benefits to society
- Climate change – the biggest environmental challenge of our time...
- The right tree for the right place..., not if but when the right place changes?

Trees in a Changing Environment

- Who decides urban direction

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Trees in a Changing Environment

- Who decides urban direction

Who decides urban direction?

Trees in a Changing Environment

- Who decides urban direction

Who decides urban direction?

- We do

Trees in a Changing Environment

- Who decides urban direction



Canopy and Stars, UK. Internet image

Trees in a Changing Environment

- Who decides urban direction

Who decides urban direction?

- We do, or more correctly... those that vote do

Trees in a Changing Environment

- Who decides urban direction



Parking campaigners, UK. Internet image

Trees in a Changing Environment

- Who decides urban direction

Who decides urban direction?

- We do, or more correctly... those that vote do
- The Local government system uses democratically elected individuals (Councillor's) to undertake decision-making on behalf of their community

Trees in a Changing Environment

- Who decides urban direction

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- The Local government system uses democratically elected individuals (Councillor's) to undertake decision-making on behalf of their community
- The typical mean life expectancy of a street tree is 19 - 28 years...

Trees in a Changing Environment

- Who decides urban direction

Who decides urban direction?

- We do, or more correctly... those that vote do
- The Local government system uses democratically elected individuals (Councillor's) to undertake decision-making on behalf of their community
- The typical mean life expectancy of a street tree is 19 - 28 years, or between 5 to 8 election cycles

Trees in a Changing Environment

- Tree risk

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Trees in a Changing Environment

- Tree risk

Tree risk

- Pruning standards focus on natural target pruning techniques, and set out pruning practices and procedures intended to reduce the risk or premature death of the individual tree

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- Tree risk



Fagus sylvatica - Dunedin

Trees in a Changing Environment

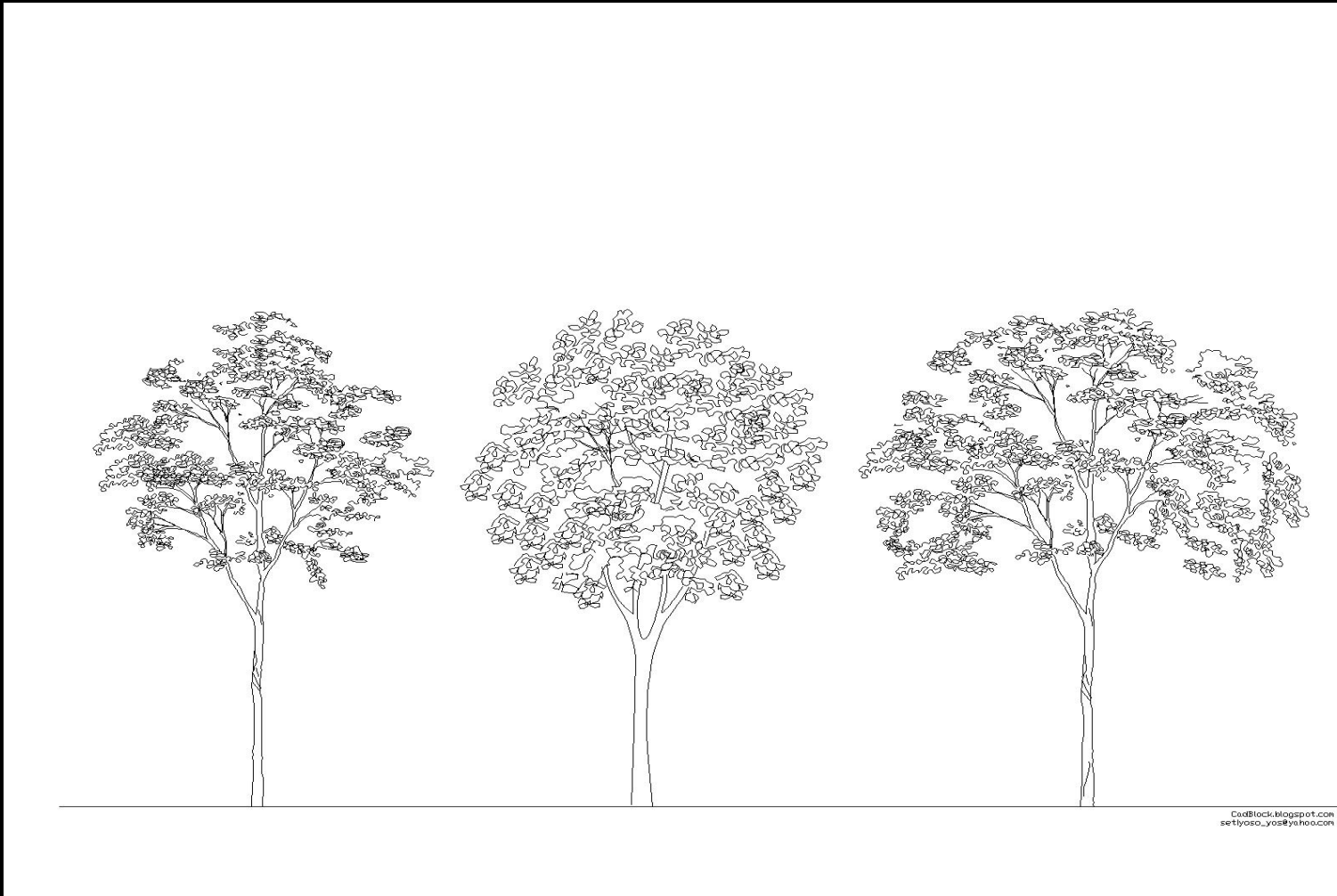
- Tree risk

Tree risk

- Pruning standards focus on natural target pruning techniques, and set out pruning practices and procedures intended to reduce the risk or premature death of the individual tree
- Pruning standards are used to retain and/or recreate a natural form and appearance of a tree

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- Tree risk



CAD Blocks (trees) . Internet image

Trees in a Changing Environment

- Tree risk



Liriodendron tulipifera - Dunedin

Trees in a Changing Environment

- Tree risk



Dunedin, New Zealand

Trees in a Changing Environment

- Tree risk



Gardens by the Bay, Singapore

Trees in a Changing Environment

- Urban ecology (trees)

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Trees in a Changing Environment

- Urban ecology (trees)



Dunedin, New Zealand

Trees in a Changing Environment

- Urban ecology (trees)



Venice Beach, California

Trees in a Changing Environment

- Urban ecology (trees)



Dunedin, New Zealand

Trees in a Changing Environment

- Urban ecology (trees)



Dunedin, New Zealand



Dunedin – New Zealand

Trees in a Changing Environment

- Urban ecology (trees)

Trees in a Changing Environment

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Internet image – Beech forest

Trees in a Changing Environment

- Urban ecology (trees)



Dunedin – New Zealand

Trees in a Changing Environment

- Urban ecology (trees)



The red woods - Dunedin

Trees in a Changing Environment

- Urban ecology (trees)



Internet image – Beech forest

Trees in a Changing Environment

- Urban ecology (trees)



Internet image - Sydney, Australia

Trees in a Changing Environment

- Urban ecology (trees)



Internet image – Beech forest

Trees in a Changing Environment

- Urban ecology (trees)



Internet image – 'Out Back' Australia

Trees in a Changing Environment

- Urban ecology (trees)



Street tree planting - Chicago. II

Trees in a Changing Environment

- Urban ecology (trees)



Street tree planting - Chicago. II

Trees in a Changing Environment

- Urban ecology (trees)



Street tree planting - Chicago. II

Trees in a Changing Environment

- Urban ecology (trees)



Rooftop planting - Chicago. II

Trees in a Changing Environment

- Urban ecology (trees)



Wanaka, New Zealand

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Trees in a Changing Environment

- What we do to our trees

What we do to our trees

- We know that trees are great survivors



Dunedin – New Zealand

Trees in a Changing Environment

- What we do to our trees



Cromwell – New Zealand

Trees in a Changing Environment

- What we do to our trees



Christchurch. New Zealand

Trees in a Changing Environment

- What we do to our trees



Temple tree, Seoul

Trees in a Changing Environment

- What we do to our trees



Dunedin - New Zealand

Trees in a Changing Environment

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Central Otago – New Zealand

Trees in a Changing Environment

- What we do to our trees

What we do to our trees

- We know that trees are great survivors
- We know that we are not actually 'recreating the natural form and appearance' of a tree

Trees in a Changing Environment

- What we do to our trees

What we do to our trees

- We know that trees are great survivors
- We know that we are not actually 'recreating the natural form and appearance' of a tree
- We know that trees are amazingly resilient

Trees in a Changing Environment

- What we do to our trees



Espalier – Internet image

Trees in a Changing Environment

- What we do to our trees



Pollarded trees – San Francisco

Trees in a Changing Environment

- What we do to our trees



Versi - France

Trees in a Changing Environment

- What we do to our trees



Internet image - The Hiroshima Bonsai

Trees in a Changing Environment

- What we do to our trees



Topiary – Internet image

Trees in a Changing Environment

- Summary

“Change is the only constant” [Heraclitus; c 535 - 475 BC]

Trees in a Changing Environment

- Summary

Change is the only constant

- We need to apply what we actually know

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Change is the only constant

- We need to apply what we actually know
- The right place is very, very unlikely to remain the right place for the entire life of our trees

Trees in a Changing Environment

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Change is the only constant

- We need to apply what we actually know
- The right place is very, very unlikely to remain the right place for the entire life of our trees
- For a tree to survive it must be able to be manipulated as the site that it grows in changes around

Trees in a Changing Environment

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Change is the only constant

- We know that we can manipulated trees

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Change is the only constant

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- We know that we are not actually 'recreating the natural form and appearance' of a tree

Trees in a Changing Environment

- Summary

Trees are amazingly resilient and those that manage them must become equally as resilient

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