

Municipal Tree Officers' Association

MTOA

The Voice of Municipal Arboriculture

Trees in the Hardscape:- Making Space for Urban Trees Below & Above Ground

Welcome to another great MTOA Seminar.

When and where? 23rd June 2014 at the Hudson Room, City of York
Council, West Offices, Station Rise, York, YO1 6GA

[\(click here for the map location\)](#)

The MTOA continue to bring you must attend seminars at tremendous value.

The itinerary for the day is;

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| 8.45 – 9.30 | Registration |
| 9.30 – 9.55 | Moray Simpson (MTOA) |
| 9.55 – 10.35 | Martin Gammie (TDAG) |
| 10.35 – 10.55 | Roy Partington (Infragreen) |
| 10.55 – 11.15 | Comfort Break |
| 11.15 – 11.55 | Lorna Davis (Welsh Water) |
| 11.55 – 12.40 | Steve Chatwin Grindley (Deeproot) |
| 12.40 – 13.35 | Lunch |
| 13.35 – 14.20 | Dr Roland Ennos (University of Hull) |
| 14.20 – 14.50 | Glen Gorner (Leeds City Council) |
| 14.50 – 15.05 | Professor Alan Simson (Leeds Metropolitan University) |
| 15.05 – 15.25 | Comfort Break |
| 15.25 – 16.10 | Dean Bowie (GreenBlue) |
| 16.10 – 16.30 | Summing Up & Final Questions |

PLEASE NOTE THAT THE PROGRAMME MAY CHANGE ON THE DAY TO SUIT THE SPEAKERS PRESENTATIONS.

This seminar is kindly sponsored by BlueGreen, Deeproot and Infragreen.

All this for only £20, yes £20.00 for MTOA, GYTOG, CAS and ISA members. Non-members £65 (dependant on space availability), bookable in advance by contacting Jean McDermott on 0121 556 8302, enquiries@isa-arboriculture.org or write to MTOA, 148 Hydes Road, Wednesbury, West Midlands, WS10 0DR.

The MTOA are sponsored by:-

ezytreeev



CPD = 5 hours

CAPITA SYMONDS

Trees in the Hardscape – Speaker & Presentation Details

Moray Simpson (MTOA)

Trees in Car Parks – Lessons learnt from a development control perspective.

Moray is a local authority planning department based arboriculturist with Wrexham County Borough Council. He is the current chair of the MTOA and an associate board member with the Ancient Tree Forum.

Presentation Synopsis: Providing sufficient canopy cover and thus leaf area in our towns and cities is essential for mitigating against the worst effects of climate change and for public health and amenity reasons. Car parks in retail developments offer ideal tree planting opportunities for increasing urban canopy cover, however the way trees have been traditionally planted in hard surfaces doesn't provide optimal conditions for trees to grow onto maturity. In fact, premature mortality of trees planted in hard surfaces is all too common. As a planning based tree officer, Moray has experienced significant opposition from developers, architects and even landscape architects to the use of techniques and materials to provide sufficient rooting volume for trees in retail car parks on development sites. Moray will share his experiences of these encounters and give recommendations from a planning perspective.

Martin Gammie (TDAG)

Successful integration of trees in the built environment

Martin is a Chartered Forester with over 30 years experience in the forestry, arboriculture and landscape industries. His arboricultural consultancy, 'Consulting with Trees Limited', provides a broad range of services to clients in both the public and private sectors across the UK. His specialist knowledge in urban forestry and green infrastructure, particularly the establishment of trees in hard surfacing led him to develop the concept of 'Sustainable integrated infrastructure' (Sii) and to lead on the development of 'Trees in Hard Landscape', the latest best practice guidance document from the Trees and Design Action Group (TDAG).

Presentation Synopsis: The ever increasing demands on our limited urban space call for innovated changes in the way we deliver the infrastructure needed to support the urban realm. Successful establishment and long term compatibility of trees in the built environment has to be a key element of modern urban design. TDAG recognises and promotes the benefits of integrated working and their latest document, 'Trees in Hard Landscape' seeks to provide a toolkit to assist those tasked with implementing innovated urban design.

Roy Partington (InfraGreen Limited) **ArborRaft**

InfraGreen Limited is a new company formed in 2013 focussing on the provision of solutions to Tree Root Protection for both new and existing trees. InfraGreen also have a range of products for landscaping, soft play areas and stormwater management applications. Roy has been involved in tree root protection systems for 15 years beginning with the original product to be accepted as a solution and was instrumental in the 3D cellular confinement systems being included in BS5837 (2005) and APN 12.

Presentation Synopsis: Roy's talk will centre around a new concept for providing protection of existing trees on development sites using a system called ArborRaft which has been used in Holland for over 7 years very successfully. This unique system is a further development of dealing with existing trees and vehicular traffic in RPA's and can be designed to include Suds or soil improvement measures.

Lorna Davis (Dŵr Cymru Welsh Water)

The use of trees in surface water management projects in Wales.

Lorna is a strategic advisor and landscape architect with Welsh Water. Welsh Water is the sixth largest of the ten regulated water and sewerage companies in England and Wales and is a single purpose company with no shareholders, which is run solely for the benefit of customers.

Presentation Synopsis: Welsh water is investing in a green infrastructure approach to managing surface water, which they have called Rainscape. Lorna will give a landscape architects view on the benefits and practicalities of using trees and tree pits in Welsh Water's Rainscape schemes and SuDS projects.

Stephen Chatwin-Grindey (DeepRoot UK)

How do we grow big urban trees?

Steve is the Commercial Director for Deeproot UK. After years of working for DeepRoot Europe, Steve joined DeepRoot UK, at around the same time the Silva Cell was launched. Steve's responsibilities include sales and continued product development. He is driven by the uniqueness of the Silva Cell and the opportunity in launching a new product, concept and challenging people's perceptions in order to contribute and improve greening the UK's cities.

Presentation Synopsis: DeepRoot manufactured the first cell system specifically designed to increase soil volumes for urban trees. DeepRoot Urban Solutions have been at the forefront of solutions to integrate both large tree growth and storm-water management. With hundreds of installations and over 3million m³ of usable soil, the Silva Cell is a suspended paving system that uses soil to support large tree growth and provide powerful on site storm-water management. DeepRoot solutions help to enhance our urban forest and surrounding watersheds in city streets, car parks and other heavily paved areas. By managing water in the lightly compacted soil within the Silva Cells, we can take storm-water off line during rain events, adding greater capacity to current drainage systems.

Topics in Steve's talk will include new methods for treating surface water runoff, combining tree planting and the benefits of big urban trees in cities, case studies, utilities and installation techniques.

Dr Roland Ennos (University of Hull)

Investigating the Environmental Benefits of Urban Trees: the lessons from the Manchester project

Dr Ennos is a researcher who is interested in the ways in which organisms interact with the physical world with a special interest in the mechanics of trees

and wood. He was the author of the Natural History Museum book *Trees* and is currently investigating how our relationship with wood has influenced our evolution and culture. He is also interested in how trees can improve the urban environment and has collaborated with Red Rose Forest and Barcham Trees to study the growth and physical benefits of trees in Manchester, UK. This work, measuring how much cooling, shade and water absorption they provide, can help us determine how well trees can climate-proof our cities.

Presentation Synopsis: The physical benefits of urban trees are well known: they intercept airborne particles, reducing pollution levels; they provide shade and cooling; and they intercept rainfall, reducing runoff and the chances of surface flooding. Experimental research in Manchester over the last five years has attempted to quantify some of these benefits, and to compare the performance of different species and trees grown in contrasting planting regimes. Crucial to the success of this work was the collaboration between local government, the voluntary sector, the tree industry and academia. We showed that all trees provide a range of physical benefits: trees typically reduced runoff by 60%, shading cooled people by up to 4-7°C and surfaces by 15-20°C, while evapotranspiration removed up to 50% of the energy from the incoming radiation. However, tree performance was highly dependent on the species and the growth conditions. Faster-growing species provided up to four times the benefits of slow-growing ones, while changes in planting regime could lead to three fold differences in growth rate and five-fold differences in performance. Good growth and performance were dependent on access to non-compacted, moist and well aerated soil. The research highlighted just how little we currently know about urban trees. However, collaboration between tree professionals and scientists could be the ideal way to find out more. Tree professionals could also carry out tree surveys that include information about tree growth rate and planting conditions and these could vastly improve our knowledge of the value of the trees in our towns.

Glen Gorner (Leeds City Council)

Glenn a former teacher is Leeds City Council's Natural Environment Manager. He is responsible for forestry, arboriculture; conservation and public rights of way. Glenn is a chartered forester and ISA certified arborist and is a past president of the ISA UK & Ireland Chapter and a past chairman of the RFS Yorkshire branch.

Glen has developed a holistic approach to promoting and implementing a landscape scale of working, focusing upon achieving true connectivity through the natural and built environments. This enabled him to make a significant contribution to Leeds City Council's emerging Core Strategy and its acceptance of the concept of Green Infrastructure.

Presentation Synopsis: Glen's presentation focuses upon our developing strategic context, reflecting on the 'journey' made over the last few years to develop well connected GI and why this has influenced the need to increase soil volumes in the hard landscape and install appropriate 'below ground architecture' to support load bearing surfaces.

Professor Alan Simson (Leeds Metropolitan University) Green Streets and the 'Resource Smart Corridor'

Alan Simson is Professor of Landscape Architecture and Urban Forestry at Leeds Metropolitan University, and Director of Research for Art, Architecture and

Design. He has gained extensive professional experience in new towns, private practice and higher education and has been involved with several EU research projects on urban forestry. He was a Founder Member of the European Forum on Urban Forestry, is chair of the Steering Committee of the White Rose Forest and is on the Shadow Board of the Yorkshire West Local Nature Partnership.

Presentation Synopsis: In December, the Leeds city region Local Enterprise Partnership's Green Economy Panel endorsed the "Green Streets initiative", collaboration between the Yorkshire West Local Nature Partnership and the West Yorkshire Transport Fund. It aims to integrate green infrastructure designs into the transport investments across the city region to promote economic growth. By combining urban street trees, water management and access to work measures such as greenways, it becomes imperative that different professional disciplines work together and share good practice to optimise the economic value of the urban forest.

Dean Bowie, GreenBlue Urban Ltd
Trees in cities - Below Ground Counts!

Dean is the CEO of GreenBlue Urban, formerly called Greenleaf.

Presentation Synopsis: This session will provide detailed guidance on the essentiality of correct urban tree pit design. Topics covered include calculating correct soil volume requirements for urban trees, and how this can be achieved whilst maintaining adjacent hard surface structural integrity. StrataCells are the only structural soil cells manufactured in the UK and from 100% recycled post-consumer waste. Successful case studies around the UK will be drawn upon to promote the use of best practise for urban tree planting.

The new 'Arborflow' WSUD tree system will be presented, which shows how surface water run-off can be managed within the tree pit design. GreenBlue Urban will share their experience of over 10 years of trees planted in load bearing soil cells, updating attendees on the key aspects they need to keep in mind is designing successful large canopy trees in paved areas.