Charlotte Dean - Green Places 2 - 2013

ORNAMENTAL EDIBLE PUBLIC PLANTING

INTRODUCTION

This project aims to explore the potential for ornamental edible planting within the context of urban public spaces. The history of public parks will be investigated and the need to re-integrate food production into the city and the challenges it presents will be discussed.
Various case studies of aesthetically pleasing schemes which include a degree of urban agriculture will then be explored and evaluated looking at the criteria which lend edible planting to be perceived as beautiful whilst being productive. A number of ornamental edible varieties will then be examined in more detail, including some unusual species. The findings of the research will then be applied to a site in the context of a public park with two interventions which will improve the park's appearance whilst being productive and enhancing its experience.

ORNAMENTAL [ˌɔːnəˈmɛntəl]

adjective

serving or intended as an ornament; decorative

noun

a plant grown for its attractive appearance.

EDIBLE [ˈɛdɪb(ə)l]

adjective

fit to be eaten (often used to contrast with unpalatable or poisonous varieties):the shrub has small edible berries

noun
(edibles)

items of food

Oxford Dictionaries, 2013

MUNICIPAL AND PUBLIC PARKS

Many of today's public and municipal parks are a product of the Industrial Revolution, a response to social, political and economical needs at a time when an exploding population was moving to urban centres where employment opportunities were plentiful. In 1851 the urban and rural population were equal but cities had long before then become densely populated and the urban expansion was causing the enclosure of much of the accessible green space for recreation such as commons. Remaining green spaces were rapidly recognised as valuable assets for the working class who unlike the middle and upper class had difficulties accessing free green space elsewhere due to the associated costs of transport.

It was in 1833 that the need for public parks was recognised for "comfort, health and content" (Conway, 1991) in a report submitted to parliament by the Select Committee on Public Walks. Between 1836 and 1881 numerous local acts which promoted the development of parks were enforced contributing to the park movement. Local Authorities acquired land through purchases or donations from benefactors and developed these into municipal parks.

Increasingly people were having more free time with the enforcement of the Factory Acts, municipal parks offered an alternative to public houses encouraging family time as well as providing a place for the different classes to meet. The parks, often referred to at the time as 'the lungs of the city' provided fresh air and a contrasting environment to the grey and industrialisation of the urban centres.

Although the term 'public' suggests a notion of freedom, this was far from the case. The parks had strict opening times and only specific activities were permitted imposed by the middle class. 'Rational recreation' included music and sport, however, football which was perceived as a working class sport was only permitted towards the end of the 19th century.

Common features of municipal parks:

- Bandstands
- Drinking fountains
- Civic pride reflected through statues and planting
- Carpet bedding
- Large expanses of green

Above: The Industrial Revolution causing urbanisation, resulting in the need for green space

The planting of parks:

Victorian municipal parks were notable for their large colourful displays of carpet bedding which exhibited a strong civic pride. Flowers became the main attraction in parks and for much of the working class these displays were the first of this kind to be seen as flowers had up until then been reserved for botanical and pleasure gardens. The flower displays were designed for entertainment and it was the overall effect of the planting which was key, the bold and contrasting displays were an illustration of 'controlled nature'.

The heavy air pollution restricted the palette of plants which were suited for the parks, trees in particular experienced difficulties surviving, however bedding plants performed in these conditions making them a cheaper alternative. Although picking flowers was forbidden, the end of the season saw masses of people queuing to collect any surplus plants, this had a positive impact on the relationship between the working class and the local authority.

FOOD IN THE CITY

The global population of over 7 billion is currently putting the food system and the environment under enormous pressure. Historically food production took place at the heart of urban settlement and the majority of food consumed was produced regionally but over the last century agribusiness, increased technology and better transport systems have resulted in food production gradually moving away from our cities, resulting in an almost complete detachment of the process of food growing. This has created an ignorance in relation to the palette of edibles which goes far beyond the produce section of the local supermarket.

Urban food production has much to offer to people, not only is it the source of local fresh food, it can boost the local economy, bring people together through a social activity and it also protects the environment by reducing food miles and carbon emissions, thus being more sustainable, a topic currently of great concern. The Government has released '2030 Food', a strategy which promotes healthy eating, sustainable food production and gas emission reduction. With this in mind and considering that in 2007 the UK produced 55% of UK consumed vegetables and only 7% of UK consumed fruit (DEFRA, 2010) is evident that urban food production is key to a sustainable future.

The opportunities for food growing in cities are endless; they range from small areas of unused or low amenity land to large expanses of space which provide cities' residents with a place for recreation such as public parks. If these public parks were created as a response to the needs of the 19th century, then why shouldn't they evolve to respond to current needs and concerns?

Challenges:

Urban food growing faces a range of challenges including vandalism, pollution whether it be in the air or in the ground but the major challenge is people's perception and acceptance of such planting within the public realm. Fruit and vegetables are frequently dismissed as ornamental due to their strive for productivity which can lead them to appear untidy. In order to re-integrate food growing into the city at a much larger scale than just allotments and back yard potagers there is an evident need to marry productivity and beauty and to challenge behavioural constraints.

DESIGNED EDIBLE SPACES

Designed edible spaces are not a recent invention, areas of land for the production of fruit and vegetables ensuring mankind's survival have existed for thousands of years but during ancient Greece and Rome green spaces began to shift away from solely food production and saw the invention of gardens designed for enjoyment, this change saw fruit and herbs frequently finding themselves in pleasure gardens. In the enclosed gardens of the medieval times, due to restrictions in space, plants rarely served one purpose; they provided food, medicine and needed to be ornamental in order to be used for altar decorations whilst orchards were laid out with aesthetics in mind (Hobhouse, 2004). The renaissance saw gardens become a tool to display power and a place to control nature, consequently loosing the majority of edibles which from then onwards were grown separately with the exception of the ornamental kitchen gardens in France.

Nowadays ornamentals displays are the focal points of most parks and gardens with the occasional fruit tree or herb bush planted amongst the decorative flowers. Unknown to most people, many ornamentals already found in our parks and gardens are in fact edibles, these include species such as dahlias, begonias, fuchsias, marigolds, and many more!

Beauty:

The term 'ornamental' presents a challenge as it refers to the notion of beauty which is personal, subjective and relative to what preceded, thus making it hard to set criteria which will achieve this status. However, a study on beauty undertaken by Cabe (2010) has revealed that nature and colour are two elements commonly associated with beauty, furthermore, 53% of the people who took part in the survey valued environmental sustainability over beauty and 50% valued functionality over beauty. With these findings in mind, there is a strong case for edible planting to become widely accepted as it more environmental sustainable than traditional bedding planting whilst being multifunctional. We can assume that proposals which are both colourful and naturalistic will successfully be perceived as being ornamental and will have the highest rate of success.

CASE STUDIES

The following pages feature a range of cases studies investigating various ways in which edibles can be incorporated into the urban realm whilst providing an aesthetically pleasing display and therefore enhancing the experience of our cities.
Each case study will then be evaluated in relation to their ornamental value and their productivity, any contributions to the structure of the landscape will also be identified. The methodology used to determine the scores / values is set out in the appendix.

CASE STUDIES - Incredible Edible Todmorden

LOCATION: TODMORDEN, PENNINES
DESIGNER: LOCAL RESIDENTS

Incredible Edible Todmorden is a 'grow your own' movement which responds to environmental concerns such as food miles and climate change. The project, which promotes an inclusive approach, aims to provide free local fresh produce to the residents of Todmorden.

Public flower beds across the town have been planted with edibles alongside some traditional ornamental species. The project has reinforced the town's community cohesion through the involvement of local schools, businesses, landowners, etc.

Although the focus of Incredible Edible Todmorden is not around creating aesthetically pleasing places, many of the interventions across the town have proven successful for their food provision as well their ornamental value.

Incredible Edible Todmorden demonstrates the potential which edibles have as a substitute to traditional ornamental planting, fulfilling an aesthetical function whilst providing locals with fresh produce.

KEY FEATURES:

- Provision of free food across the town
- Inclusive and activist approach
- Fruit, vegetables and edible flowers
- Orchards

KEY EDIBLES (the list is endless but varieties include):

- Many herbs
- Fruit trees
- Swiss Chard
- Maize
- Globe artichoke
- Nasturtiums

CASE STUDIES - Curtis “50 Cent” Jackson Community Garden

LOCATION: QUEENS, NEW YORK
DESIGNER: WALTER HOOD

The “50 Cent” Community Garden is a key example of a successful green space which combines functionality and productivity in an overall aesthetically pleasing form. The project is the product of a collaboration between the New York Restoration Project (NYRP) and rapper 50 Cent who wanted to give back something to his childhood community.

The playful design which includes bright colours and bold geometric shapes takes inspiration from the Chateau de Villandry’s Garden of Love and Kitchen Gardens.

The garden features a learning garden for the local schoolchildren, a main food growing area in raised beds as well as tall blue funnels which harvest rainwater. Tall wooden frames along the park’s edge provide a structure for climbing vegetables whilst providing shade for the seating area.

The garden has become a busy community hub where a range of events take place including gardening workshops and film nights. A highly valued space in a deprived neighbourhood which offers only 5% of the recommended green space.

KEY FEATURES:

- A combination of ornamentals and edibles into bold blocks of colour
- A rainwater harvesting system to maintain the park’s crops
- Multi-functional spaces
- Raised beds

KEY EDIBLES:

- Fruit trees
- Colourful cabbages
- Sweetcorn
- Climbing vegetables

CASE STUDIES - Lafayette Greens

LOCATION: DETROIT
DESIGNER: KENNETH WEIKAL LANDSCAPE ARCHITECTURE

Lafayette Greens is a community garden located in the busy financial area of Downtown Detroit. In 2010, the historic Lafayette building which lied on the site was demolished leaving the site empty and causing urban blight to the area.

The space is composed of strong geometric shapes which reflect the structural order found in cities whilst the linear raised planters are inspired by the traditional agricultural rows found in the countryside. Considerations into the design included sun exposure, desire lines as well as views from the overlooking building.

35 raised beds varying in height due to the site's sloping levels are planted with over 200 varieties of fruit, vegetables and flowers. The space hosts events and workshops as well as art installations, which include the sculptural sheds.

This engaging, beautiful and productive space demonstrates that the urban realm can be enhanced by designed urban agriculture.

KEY FEATURES:
- Strong geometric design
- Art installations
- Community and educational space
- Lavender promenade
- Educational children's garden
- Combination of edibles and traditional ornamentals

KEY EDIBLES:
- Blackberry
- Heirloom fruit trees
- Hardy Kiwis
- Lavender

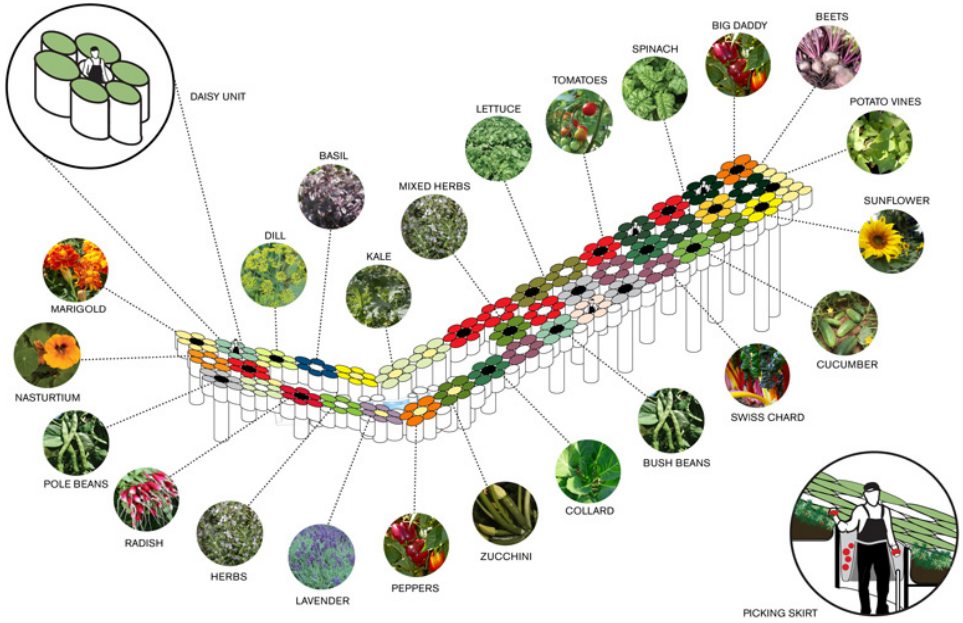
CASE STUDIES - Public Farm 1

LOCATION: PS1 CONTEMPORARY ART CENTRE, NEW YORK
DESIGNER: WORK ARCHITECTURE COMPANY

Public Farm 1 is a temporary sculptural intervention which was installed during the summer of 2008. The project reflects strong environmental concerns and aimed to demonstrate that a self-sustainable system is possible in an urban context.

The installation, which is 100% sustainable and recyclable, is a colourful artistic display of edibles. The produce is located at roof top level, whilst the shaded lower level provides an interactive social space with unusual features such as a solar-powered juicer, farm animal noises and a periscope to view the edibles above. The sculpture is composed of groups of six cylindrical cardboard tubes laid out in a circle with room in its centre to allow access for picking. Each daisy looking group is planted with the same specie creating blocks of colour with an overall successional flowering effect.

Public Farm 1 is an innovative approach to food provision, illustrating how food can be artistically re-integrated into the urban realm. The installation provides multiple purposes; a sculpture, a sustainable system, an urban farm as well as a social space.



KEY FEATURES:

- A sculpture in its own right
- Self-sustainable in terms of water and electricity
- Composed of compostable or recyclable materials
- Sculpture, urban farm and social space all in one

KEY EDIBLES:

- Nasturtium
- Beetroot
- Kale
- Chard
- Herbs
- Radish

CASE STUDIES - Leadenhall Street City Farm

LOCATION: 122 LEADENHALL STREET, LONDON
DESIGNER: MITCHELL TAYLOR WORKSHOP

Leadenhall Street City Farm is the winning entry to a competition for a low cost temporary intervention on a vacant site in a busy financial district of London. The designers aimed to create an innovative contrast to the existing wasted site and its surrounding grey buildings. This was achieved by the proposal of an urban farm.

The urban farm would be divided into a number of colourful blocks of monocultures, mainly in raised recyclable planters. The food harvested would be used to prepare fresh meals sold on site.

The proposal considers the needs of the busy commercial area; it provides an escape from the office whilst creating a colourful splash amongst the city's grey environment which can be contemplated from the office window.

Leadenhall Street City Farm demonstrates that urban agriculture can be a response to temporary space and improve the quality of our cities by addressing the problem of urban blight caused by abandoned building sites.

KEY FEATURES:

- Movable planters
- Mushroom log forest
- Spring flower meadow
- Cafe selling on site grown produce
- Colourful and contrasting blocks of edibles which brighten up the grey surroundings

KEY EDIBLES:

- Mushrooms, rhubarb and mint in the shade
- Soft fruit (loganberries, redcurrant, strawberries, etc)
- Herbs
- Leafy vegetables (lettuce, chard, purple sprouting, etc)
- Root vegetables (Jerusalem artichoke, carrots, etc)

CASE STUDIES - Evaluation

	Incredible Edible Todmorden	"50 Cent" Community Garden	Lafayette Greens	Public Farm 1	Leadenhall Street City Farm
Ornamental value, main planting style, colour and naturalness	The planting at Fielden Wharf and Burley Road herb garden are polycultures of closely planted individual or groups of three or five species selected for colour, texture and form. The plants appear to have been put together at random. **Style: cottage garden** **Colour: medium to high** **Naturalness: high** **Value: high**	The planting which includes both edibles and inedible is formed of a limited number of species. The planting which was designed to appeal to children, is composed of geometrical blocks of colourful and contrasting vegetation. **Style: block planting** **Colour: high** **Naturalness: low** **Value: medium**	The majority of the planting is in geometric raised beds in sequential monocultures thus resembling allotment planting. The choice of species and the small sizes of the groupings contribute to softening the overall design and giving a naturalistic feel to the space. **Style: allotment planting** **Colour: medium to high** **Naturalness: medium - high** **Value: medium to high**	The daisy shaped blocks of planting are formed of six circular planters. The species exhibiting the boldest colours are placed in the roof area in order to be viewed from above whilst the more fragrant and textured species are located at ground level. **Style: block planting** **Colour: medium to high** **Naturalness: low** **Value: medium**	The planting proposal exhibits bold and contrasting colours of medium to large blocks of monocultures. In contrast, the mushroom log forest and the meadow for pollinators give a naturalistic touch to the overall design. **Style: block planting & allotment planting** **Colour: medium to high** **Naturalness: low - medium** **Value: medium**
Productivity value	The focus of the project is to provide fresh produce, as a result the displays are very productive with a limited space for inedibles. **Value: high**	The planting includes many inedible species whilst the palette of edibles is fairly limited. **Value: low - medium**	The planting displays a variety of species including only a small number of inedibles. The plants are closely planted maximising the use of space. **Value: medium to high**	All of the plants are edibles with the only exception of Buddleia which was planted to attract pollinators. **Value: high**	As a city farm the focus of the project is productivity resulting in proposed displays composed of edibles or species to attract pollinators. **Value: high**
Contribution to the landscape structure	The low to medium vegetation creates a small barrier which gives a sense of separation from the busy road.	Climbing plants growing up the arbor along the street side create vertical greenery which defines the park's entrance.	The raised beds planted with edibles direct users across the site. Hardy kiwis growing up a trellis provide a seasonal enclosure and a shaded area.	The plants which are at roof level, along with the structure, provide shelter to the space's users.	The mushroom log forest creates a semi-permeable boundary along the path.

ORNAMENTAL EDIBLE SPECIES - Trees

Snowy Mespilus
Amelanchier lamarckii

Plant type:
Small deciduous tree

Ornamental qualities:
- Star-shaped white flowers from March to April
- Colourful autumn foliage

Edible part:
- Dark red berries from July to August

Notes:
The berries are great for making jelly.

Sweet Cherry
Prunus avium 'Stella'

Plant type:
Small to medium deciduous tree (available on a range of rootstocks)

Ornamental qualities:
- Abundant clusters of white flowers from April to May
- Colourful autumn foliage

Edible part:
- Fruit in late July

Notes:
This variety is self-fertile.

Walnut
Juglans regia

Plant type:
Medium deciduous tree

Ornamental qualities:
- Large oblong leaves
- Long catkins
- A green fruit which contains the nut

Edible part:
- Nuts are ready to harvest in August
- Leaves can be used in tea
- The sap can be tapped to produce sugar (in spring)

ORNAMENTAL EDIBLE SPECIES - Trees and Large Shrubs

Rowan
Sorbus aucuparia

Plant type:
Medium deciduous tree

Ornamental qualities:
- White flowers from May to June
- Colourful berries and yellow foliage in autumn

Edible part:
- Berries (August to October)

Notes:
The berries are great for making jelly.

Lilac
Syringa vulgaris

Plant type:
Small tree with long clusters of white, pink or purple flowers

Ornamental qualities:
- Clusters of flowers appear in May

Edible part:
- Flowers

Notes:
Lilac flowers taste great with dairy products such as cream cheese or yoghurt.

Elderflower
Sambucus nigra

Plant type:
Large deciduous shrub

Ornamental qualities:
Large clusters of small star-shaped white flowers appear from May to July

Edible part:
- Flowers
- Berries once cooked (September-October)

Notes: The fragrant flowers can be used to produce elderflower cordial or champagne.

ORNAMENTAL EDIBLE SPECIES - Herbs

Chives

Allium schoenoprasum

Plant type:
Bulb

Ornamental qualities:
- Light purple flowers appear from May throughout the summer

Edible part:
- Leaves

Notes:
Currently being grown at Redhall Nursery!

Dill

Anethum graveolens

Plant type:
Annual herb

Ornamental qualities:
Finely dissected blue - green leaves provide a fine fluffy texture.
Umbels of yellow flowers in early summer.

Edible part:
- Leaves
- Flowers (May-July)

Notes:
Currently being grown at Redhall Nursery!

Rosemary

Rosmarinus officinalis

Plant type:
Evergreen shrub

Ornamental qualities:
- All year round fine foliage
- Small purple flowers in April-May

Edible part:
- Leaves
- Flowers

Notes:
Rosemary flowers can be added to biscuit dough.

ORNAMENTAL EDIBLE SPECIES - Herbs

Sage

Salvia officinalis

Plant type:
Evergreen sub-shrub

Ornamental qualities:
- Pale blue flowers in summer (June-August)
- Oblong aromatic leaves

Edible part: Leaves

Notes, varieties include:
- 'Purpurascens' (purple leaved)
- 'Variegata' (variegated leaves)

Currently being grown at Redhall Nursery!

Basil Dark Opal

Ocimum basilicum 'Dark Opal'

Plant type:
Annual herb

Ornamental qualities:
- Large shiny reddish-purple foliage from May to October

Edible part:
- Leaves

Notes:
The dark purple foliage creates a pleasant contrast amongst other green leaved species

Thyme

Thymus vulgaris

Plant type:
Evergreen small shrub

Ornamental qualities:
All year round fine foliage and small light pink flowers (June -July)

Edible part: Leaves and flowers

Notes, varieties include:
- 'Silver Queen' (variegated leaves)
- 'Argenteus' (silver edged)

Currently being grown at Redhall Nursery!

ORNAMENTAL EDIBLE SPECIES - Fruit

Rhubarb

Rheum x hybridum

Plant type:
Perennial

Ornamental qualities:
- Colourful red-pink stems appear from March
- Large heart-shaped leaves

Edible part:
- Stems (May to August)

Notes:
Rhubarb can be forced in order to obtain earlier crops.

Blueberry

Vaccinium corymbosum

Plant type:
Deciduous shrub

Ornamental qualities:
- Colourful autumn foliage
- Small white flowers in May

Edible part:
- Berries (July to September)

Notes:
Requires acidic soil

Strawberry

Fragaria x ananassa Tarpan Hybrid

Plant type:
Perennial

Ornamental qualities:
Abundance of deep rose flowers from May to June which eventually turn into the fruit.

Edible part:
- Fruit (June -July)

Notes:
Currently being grown at Redhall Nursery!

ORNAMENTAL EDIBLE SPECIES - Vegetables

Lettuce Lollo Rosso

Lactuca sativa

Plant type:
Salad vegetable

Ornamental qualities:
- Frilled green leaves with a red edge (April - October)

Edible part:
- Leaves (June - October)

Notes:
Contrasts well with Lolla bionda.

Currently being grown at Redhall Nursery!

Chard

Beta vulgaris subsp. cicla

Plant type:
Leafy vegetable

Ornamental qualities:
- Vibrant stems and leaf veins (May to October)

Edible part:
- Leaves (June to October)
- Stems

Notes:
Currently being grown at Redhall Nursery!

Sprouting Broccoli 'Summer Purple'

Brassica oleracea Italica Group

Plant type:
Brassica

Ornamental qualities:
- Purple heads of broccoli from June
- Blue-green foliage

Edible part:
- Broccoli heads (July to November)

Notes: Currently being grown at Redhall Nursery!

ORNAMENTAL EDIBLE SPECIES - Vegetables

Pumpkin 'Paintball'

Cucurbita maxima

Plant type:
Fruiting vegetable

Ornamental qualities:
- A medium size smooth bright orange fruit (August to October)

Edible part:
- Fruit
- Seeds

Notes:
Currently being grown at Redhall Nursery!

Florence Fennel

Foeniculum vulgare var. azoricum

Plant type:
Stem vegetable

Ornamental qualities:
Green feathery foliage (June to October) contrasts with its white bulb.

Edible part:
- Stems (September - October)
- The foliage can be used as a herb

Notes:
Currently being grown at Redhall Nursery!

Beetroot

Beta vulgaris

Plant type:
Root vegetable

Ornamental qualities:
- Vibrant red leaf veins (May to November)

Edible part:
- Root (July to November)
- Young leaves

Notes:
Currently being grown at Redhall Nursery!

ORNAMENTAL EDIBLE SPECIES - Edible Flowers and tubers

Nasturtium
Tropaeolum majus

Plant type:
Annual

Ornamental qualities:
- Colourful flower (July to September)
- Lush green foliage

Edible part:
- Leaves
- Flowers

Notes, varieties include:
- 'Alaska Mixed' (variegated leaves)

Jerusalem Artichoke
Helianthus tuberosus

Plant type:
Herbaceous perennial

Ornamental qualities:
- Vibrant yellow flowers (August - September)

Edible part:
- Tubers (October - February)

Notes:
Jerusalem artichokes can grow up to 3m making them a good windbreak.

Lavender
Lavandula angustifolia

Plant type:
Evergreen shrub

Ornamental qualities:
- Purple flowers (July to September)
- Evergreen foliage

Edible part:
- Flowers

Notes:
Lavender flowers are great in biscuits.

ORNAMENTAL EDIBLE SPECIES - Edible Flowers and tubers

Ramanas Rose

Rosa rugosa

Plant type:
Shrub

Ornamental qualities:
- Pink or white flowers (June to September)

Edible part:
- Flowers
- Rose hips

Notes:
Can be used as a hedging plant providing structure as well as food and decoration.

Cornflower

Centaurea cyanus

Plant type:
Annual

Ornamental qualities:
- Vibrant blue flowers (June to August)

Edible part:
- Flowers

Notes:
Cornflowers are commonly found in meadows and can contribute to a loose and naturalistic feel.

Dahlia

Dahlia

Plant type:
Tuberous perennial

Ornamental qualities:
- Showy flowers (June - October)

Edible part:
- Tubers
- Petals

Notes:
Heirloom varieties have much tastier tubers than some of the modern hybrids.

ORNAMENTAL EDIBLE SPECIES - Edible Flowers

Carnation / Pink
Dianthus

Plant type:
Herbaceous perennial

Ornamental qualities:
- Colourful flowers from June

Edible part:
- Flowers

Notes:
Dianthus are very versatile and can be added to soups, cakes, salads and even stir-fries or ice cream!

Viola
Viola

Plant type:
Annual or perennial

Ornamental qualities:
- The flowers (May to September) come in a range of colours from bright yellows to whites.

Edible part:
- Flowers

Notes:
Violas taste very much like lettuce and are great to decorate salads.

Fuchsia
Fuchsia

Plant type:
Deciduous shrub or annuals

Ornamental qualities:
- Colourful flowers from June until the first frosts

Edible part:
- Flowers
- Berries

Notes:
Hardy fuchsias can be used as hedging plants providing structure as well as food and decoration.

LEEDS EDIBLE CAMPUS

The Leeds Edible Campus (LEC) is a Leeds based project which aims to promote locally grown food by instating an edible corridor through the city.

Like many towns across the world, this project was inspired by the 'grow your own' movement which Todmorden became famous for in 2008. The LEC was initiated by TRUG, a group of like minded academics who share the same environmental concerns about food security and mileage, however interest in the project has grown and the LEC project is now an entity of its own.

As well as challenging people's behaviours with regards to the integration of agriculture within the city, other issues faced in a project of this nature typically include determination of land ownership and reaching an agreement with numerous stakeholders which all have very different interests at heart.

The project is due to be completed in stages, the first of which will stretch from Millennium Square to Woodhouse Moor as illustrated on the right.

WOODHOUSE MOOR

The park features:

1. Tennis courts (x2)
2. Bowling greens (x3)
3. Allotments (x98)
4. Skate and bmx park
5. Children's play area
6. Monuments (x4)

Woodhouse Moor is a 60 acre public park located in the north western area of Leeds, adjacent to the University of Leeds campus, the Woodhouse neighbourhood and the densely populated Hyde Park area.

The park is divided into 3 main areas; the main park, Cinder Moor and Monument Moor. The latter two areas currently have very a limited function in terms of a public park, offering a parking area and a space for the visiting circus. The layout of the main area is composed of perimeter and diagonal paths lined with mature trees. The central paths converge in at least one of two central points which are the location of the original bandstand and clock fountain. The areas between the walkways offer large expanses of green spaces.

Woodhouse Moor is a very popular destination amongst the locals it is the second most visited park in Leeds (LCC, 2009). Every summer, the park hosts the Hyde Park Unity Day, a celebration of the local community which features local bands, performers and community organisations.

In 2012, the park was designated as part of the Headingley Hill, Hyde Park and Wodhouse Moor Conservation area.


Hyde Park Unity Day

WOODHOUSE MOOR - HISTORY

"Woodhouse Moor, 'the lungs of Leeds,' is the people's park, and almost the only open space within the borough where our citizens can assemble for recreation in the open air." (The Leeds Mercury, 1855)

Woodhouse Moor was purchased by Leeds Council in 1857 becoming the town's first municipal park. The park was acquired following concerns of its enclosure and a recognition of its value to the residents of a town which was expanding rapidly and where access to public green space was becoming increasingly more difficult.

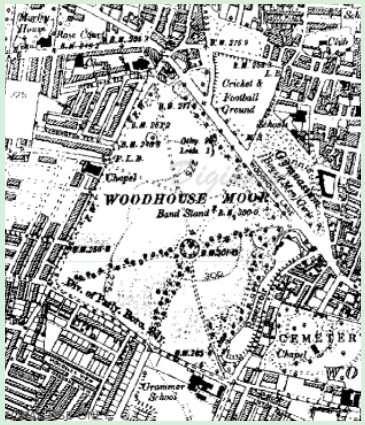
As its name indicates, the moor is located on elevated ground in comparison to its context and would have offered extensive views in most directions prior to the existence of mature trees.

1907 Ornamental lamp arches and bandstand in the distance

EVOLUTION OF WOODHOUSE MOOR

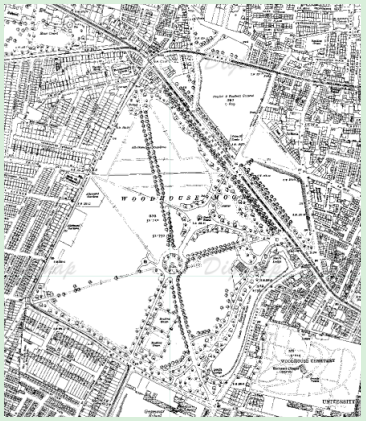
1850's

Woodhouse Moor a common, the site is open with no or little tree coverage. The land to the west and south of the moor is undeveloped.



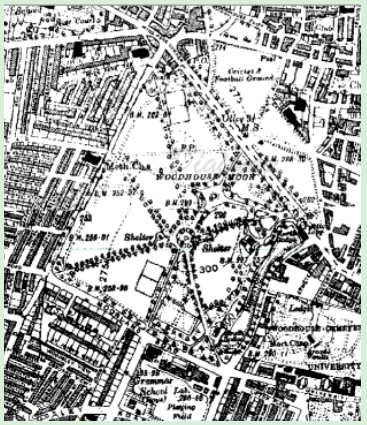
1890's

The park has been planted with avenues of trees and features a fountain, a bandstand, a gymnasium as well as cricket & football grounds. The land to the west and south has been built on.



1920's

The park features two bowling greens, additional paths and allotment gardens which appeared towards the end of WWI, these were located to the northern area of the main park as well as along its western edge.



1930's

The allotments of the 1920's have disappeared, whilst two tennis courts and an additional bowling green have appeared.

1960's

Allotments have been re-integrated into the park, these form part of the allotments present now.

WOODHOUSE MOOR - SITE ANALYSIS

KEY

- Accessible green space
- Industrial estate
- University campuses
- 1km radii from Woodhouse Moor (12min walk)
- Place of education
- Existing food growing project
- Existing main bus route and future trolley bus route (2018)
- Main walking routes to and from the university campuses

The site is located between the main student hub and the residential areas of Hyde Park and Headingley which both have a high student population. As a direct result, the park is a thoroughfare for students walking to and from university as well as being a key route into the city centre giving it a high footfall.

Local residents as well as students and staff of the student hub make up the majority of the park's visitors who travel predominantly by foot. Other key modes of transport include cycling and bus due to the park's location on the main bus route.

Hyde Park and Woodhouse ward key statistics (2011 Census):

- **Students account for over 50% of the population**
- **Over 60% of the population is aged 16-29**
- **Average density of 67 people per hectare**

The high volume of students results in a transient population which is also reduced in numbers during the summer when the majority of edibles are ready for harvest. Engaging with the permanent residents and getting them on board is key to ensure the project's success.

The project has the potential to reinforce the network of existing edible spaces by providing connections to Meanwood Valley Urban Farm, Bedford Fields Forest Garden and many schools growing edibles.

POPULATION DENSITY

- Low density
- Medium density
- High density
- Universities hub (High density)
- Industrial area (Low density)

The adjacent areas have a very high population density, particularly the Hyde Park neighbourhood where the majority of dwellings are back to back terraces with little or no outdoor space. Consequently opportunities for food growing are limited and therefore the integration of edible planting within Woodhouse Moor would be particularly beneficial to residents of the neighbourhood.

WOODHOUSE MOOR - BRIEF

STAKEHOLDERS

In order to prove successful, the proposal will need to consider the needs and views of the following stakeholder:

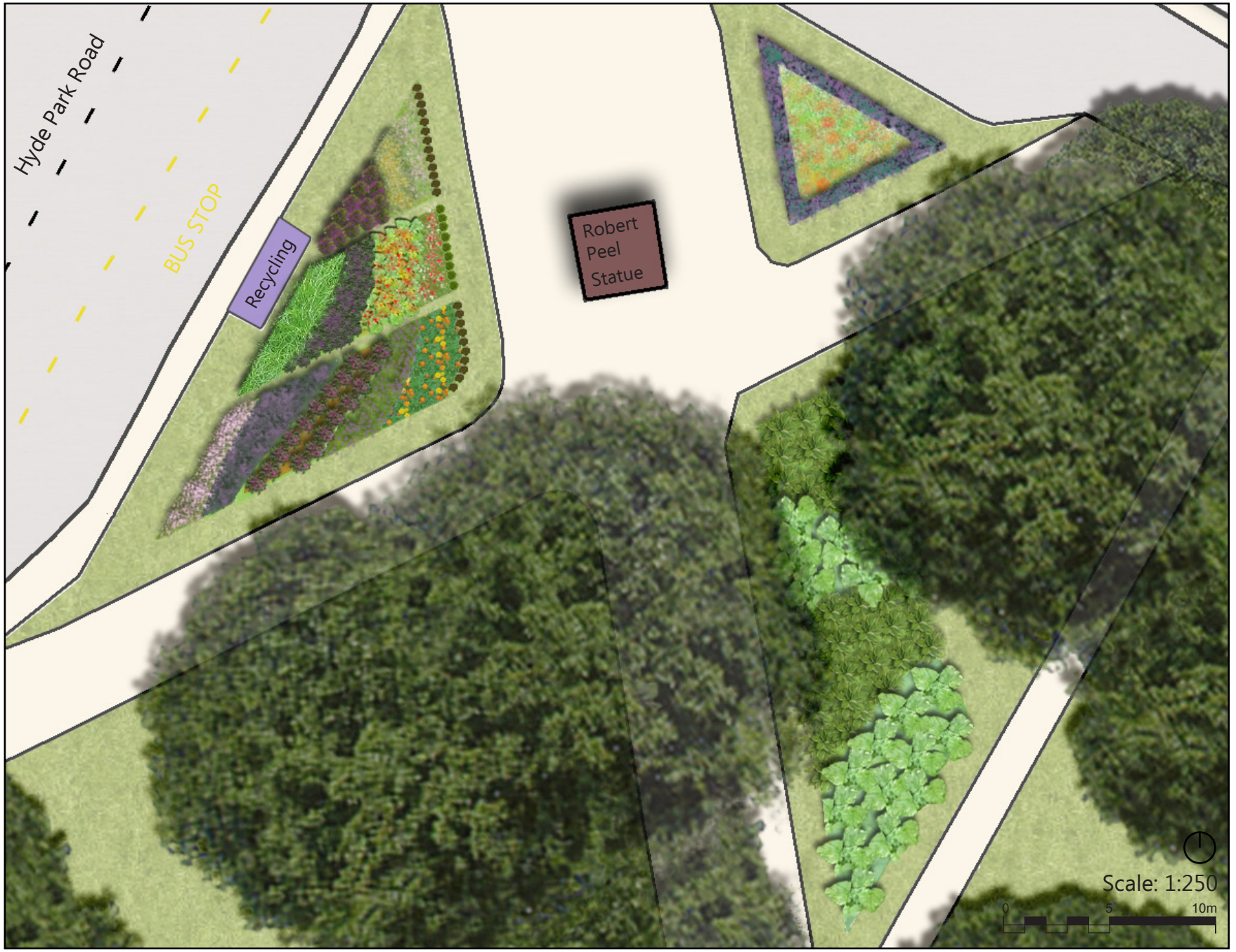
- Local residents, both student population which is transient and permanent residents
- Woodhouse Moor allotment holders
- Friends of Woodhouse Moor
- Parks Department
- Sport facilities users (Bowling Green and Tennis)

The stakeholders will inevitably have different views of a suitable scheme for the site, with some being conservative whilst others may be much more open to change. It is for this reason that multiple interventions are proposed.

DESIGN AIMS

- Provide a range of edibles for the residents and users of the space
- Enhance Woodhouse Moor
- Illustrate a range of design and planting styles
- Promote the integration of urban agriculture into the urban fabric
- A contemporary approach to traditional municipal park planting
- Emphasise the range of edible plants which are already commonly found in public parks
- Consider companion planting

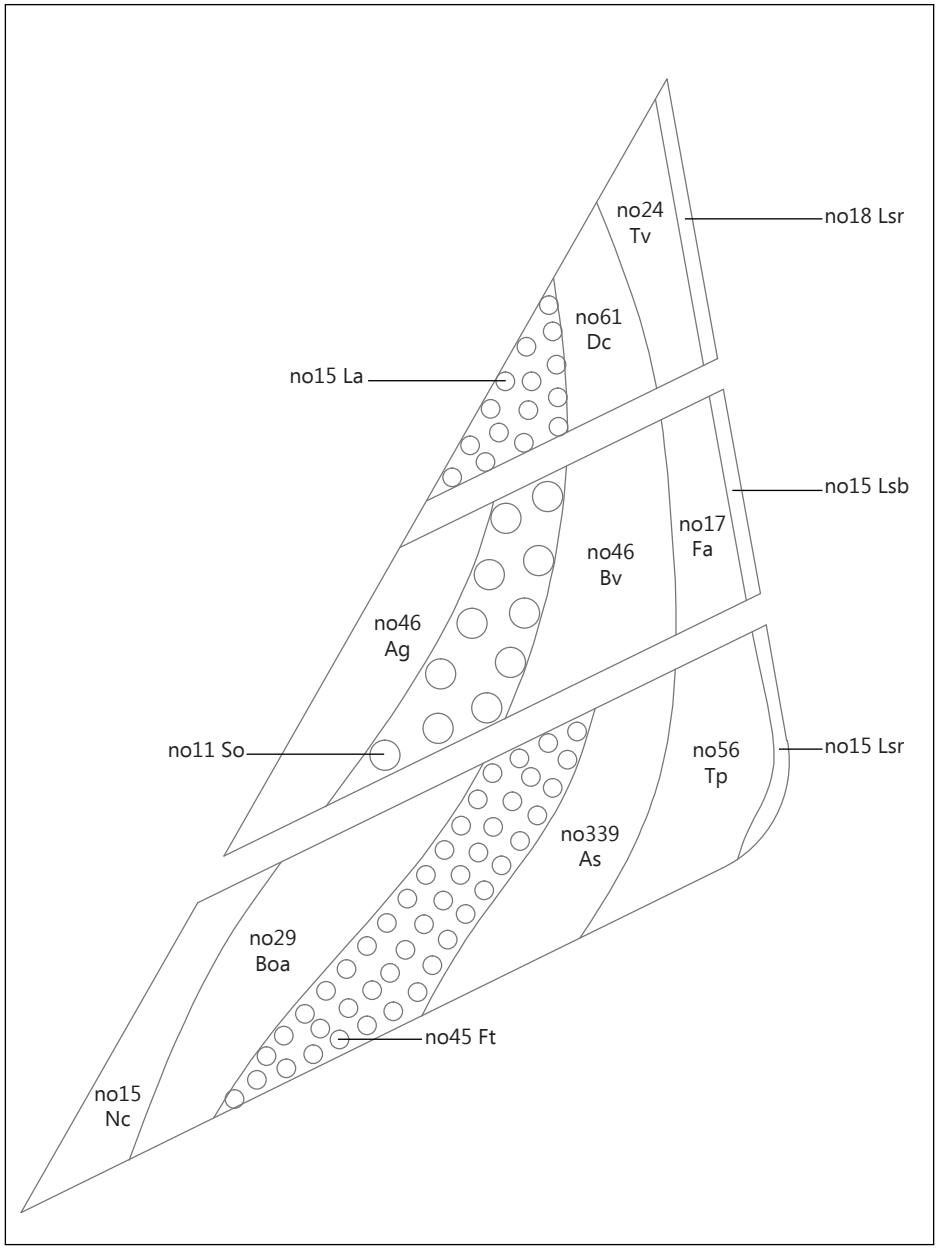
PEEL ENTRANCE - HYDE PARK CORNER

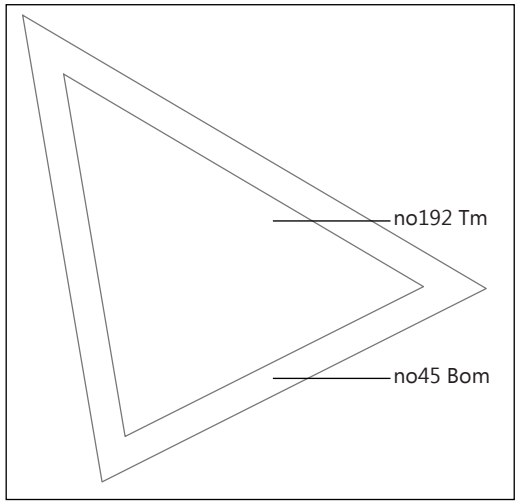


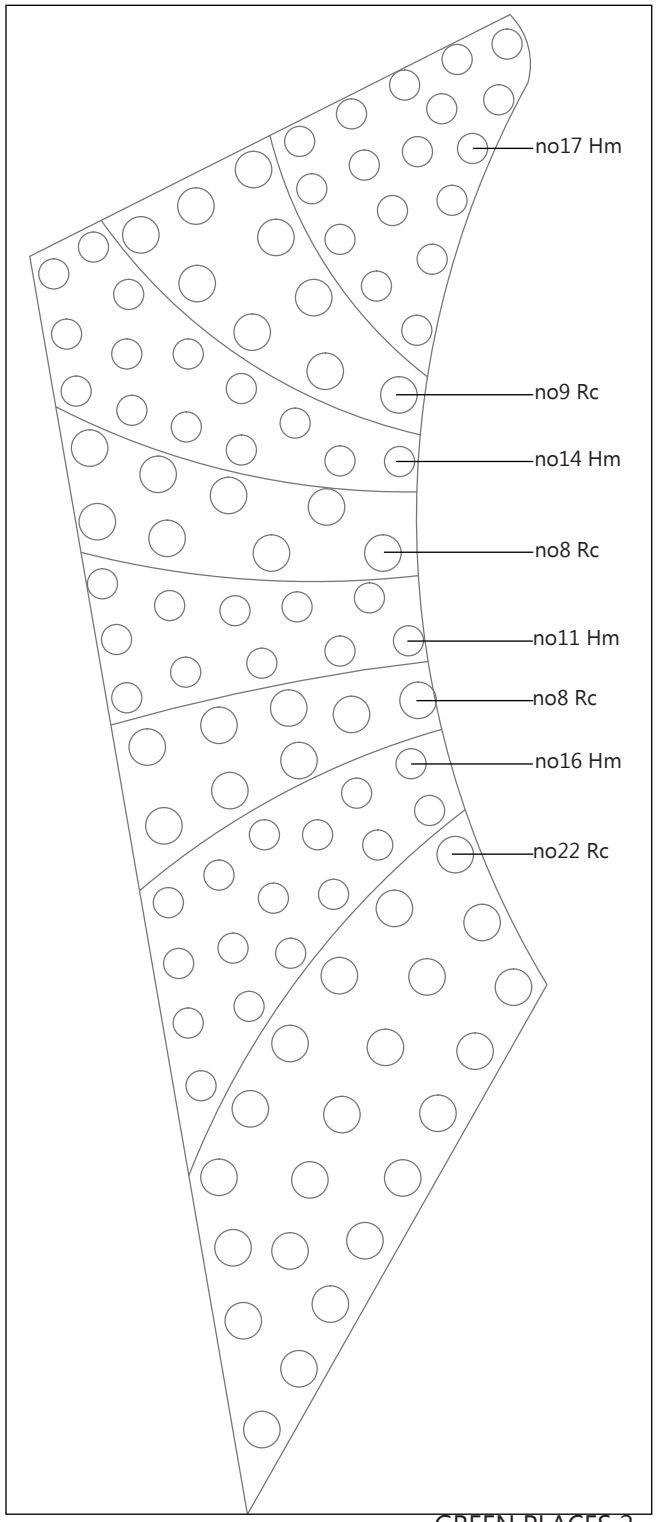
PEEL ENTRANCE - HYDE PARK CORNER

The peel entrance to Woodhouse Moor at Hyde Park Corner is located on the main route which connects Headingley to Leeds University making it a busy thoroughfare. The statue of Robert Peel overlooks the area which currently lacks a main entrance status unlike the Queen Victoria entrance. The proposed planting style for this area is a contemporary approach to traditional carpet bedding, replicating large areas of colourful planting using only a small palette of plants. All species are edibles as well as ornamentals and include a combination of shrubs, perennials and annuals providing structure, flexibility and sustainability. The planting on the western edge of the site is stepped in order to create a 'showy' effect.

PEEL ENTRANCE - PLANTING PLAN

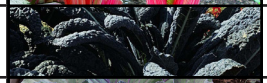
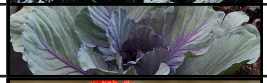
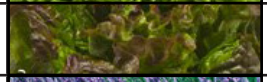






Scale 1:125

PEEL ENTRANCE - PLANTING SCHEDULE

Common Name	Latin Name	Code	Colour/Interest	Final Height	Final Spread	Planting Density	Pot Size	Quantity
Chive	Allium schoenoprasum	AS		45cm	15cm	44/m2	1L	339no
Dill	Anethum graveolens	AG		90cm	40cm	6/m2	5cm	46no
Swiss Chard 'Bright Lights'	Beta vulgaris subsp. cicla var. flavescens	BV		50cm	40cm	6/m2	5cm	46no
Kale 'Nero di Toscana'	Brassica oleracea (Acephala Group)	BOA		90cm	60cm	3/m2	5cm	29no
Cabbage 'Mohykan'	Brassica oleracea (Capitata Group)	BOM		30cm	45cm	5/m2	5cm	45no
Carnation	Dianthus 'Chris Crew'	DC		50cm	25cm	16/m2	1L	61no
Strawberry	Fragaria x ananassa	FA		30cm	45cm	5/m2	5cm	17no
Fuchsia 'Tom Thumb'	Fuchsia 'Tom Thumb'	FT		50cm	50cm	See plan	3L	45no
Plantain Lily	Hosta montana 'Aureomarginata'	HM		70cm	100cm	See plan	3L	58no
Lettuce 'Lollo Bionda'	Lactuca sativa	LSB		15cm	25cm	16/m2	5cm	15no
Lettuce 'Lollo Rossa'	Lactuca sativa	LSR		15cm	25cm	16/m2	5cm	33no
Lavender	Lavendula angustifolia 'Hidcote'	LA		60cm	60cm	See plan	3L	15no
Catmint	Nepeta cataria	NC		100cm	60cm	3/m2	3L	15no
Rhubarb 'Champagne'	Rheum x hybridum	RH		60cm	120cm	See plan	3L	47no
Sage	Salvia officinalis 'Purpurascens'	SO		70cm	90cm	See plan	3L	11no
Marigold 'Zenith Mixed'	Tagetes patula x erecta	TP		30cm	35cm	8/m2	5cm	56no
Thyme 'Silver Posie'	Thymus vulgaris	TV		30cm	40cm	6/m2	1L	24no
Nasturtium 'Tom Thumb'	Tropaeolum majus	TM		30cm	30cm+	12/m2	5cm	192no

WOODHOUSE MOOR COMMUNITY ORCHARD

KEY

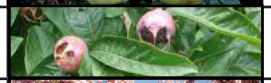
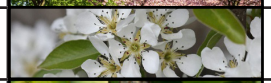
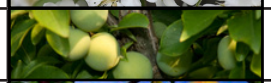
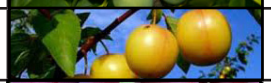
- Existing tree
- Existing wild flower and tree strip
- Proposed tree
- Proposed Meadow planting
- Proposed seating area

WOODHOUSE MOOR COMMUNITY ORCHARD

This proposal for an ornamental community orchard at Woodhouse Moor provides an informal edible space to enjoy, learn and eat from. A swathe of ornamental edible fruit and nut trees connects the allotments and existing strip of wild flower and trees to the existing open path offering passers by snack on the way. The orchard which would be underplanted with a traditional mix of meadow grasses and wildflowers would provide a place to meet and learn at its small circular seating area hidden away amongst the trees.

WOODHOUSE MOOR COMMUNITY ORCHARD - PLANTING STRATEGY

Along path: sequential planting of species in pairs, tallest rootstocks, heaviest croping and most fragrant varieties.
Along the allotment and existing strip of trees and shrubs: a range of individual species providing the highest biodivesity value.
Around the seating area: individual species, a high visual interest and lower rootstocks in order to provide a sense of semi-enclosure.
Other areas: Species to be planted individually or in groups of threes, fives or sevens, a combination of rootstock sizes amongst the central planting area and using smaller rootstocks along the grass fringe.
The list below provides a sample planting list of suitable species for the Woodhouse Moor Community Orchard.

Common Name	**Latin Name**	**Colour/Interest**	**Rootstock / size**	**Spacing**	**Location**
Sweet Chestnut 'Marsol'	Castanea sativa		12m	6m	1-2 along path
Trazel 'Freeoka'	Corylus x colurnoides		15m (prune)	4m	All locations
Quince 'Smyrna'	Cydonia oblonga		Quince A	3.5m	All locations
Walnut 'Broadview'	Juglans regia		9m	6m	Central area
Apple 'Arthur Turner'	Malus sylvestris		MM106	3-4m	Allotment & C. area
Medlar 'Nottingham'	Mespilus germanicus		Quince A	3.5m	Allotment & C. area
Cherry 'Morello'	Prunus avium		Colt	3.5m	All locations
Pear 'Concorde'	Pyrus communis		Quince A	4m	All locations
Gage ' Dennistons Superb'	Prunus domestica italica		St-Julien A	3.5m	Allotment & C. area
Mirabelle 'Golden Sphere'	Prunus domestica subsp. syriac		St-Julien A	3.5m	All locations
Plum 'Giant Prune'	Prunus domestica		St-Julien A	3.5m	All locations
Damson 'Farleigh'	Prunus insititia		St-Julien A	3.5m	Allotment & C. area
Lilac 'Katherine Havemeyer'	Syringa vulgaris		2.5 - 4m	3m	Path and seating area

APPENDIX - CASE STUDY EVALUATION METHODOLOGY

In order to assess the degree of success of each case study, these need to be evaluated for both their productivity and their ornamental value. The productivity of each case study is assessed based on the diversity of edibles within the scheme combined with the ratio of edibles to inedibles. The ornamental value is assessed based on the findings from CABE's 'People and Places: Public attitudes to beauty' study which identifies colour and nature as being two key elements which people associate with beauty. In consequence naturalistic planting such as the cottage garden style is more likely to be perceived as beautiful than a mosaic of block planting which would not occur in nature.

It is important to emphasise that although productivity and beautiful planting are essential to successful ornamental edible beds, there is a third factor which contributes to the success of an Ornamental Edible Space, the overall design, making the role of the designer such as a landscape architect or garden designer key.

The tables below sets out the matrix against which all five case studies have been evaluated.

ORNAMENTAL VALUE

	Little Colour	Colourful	Very Colourful
Unnaturalistic (Block planting, carpet bedding, etc.)	Low	Low - Medium	Medium
A combination of naturalistic and unnaturalis-tic features	Low - Medium	Medium	Medium - High
Highly naturalistic (Cottage garden planting, meadow planting, etc.)	Medium	Medium - High	High

PRODUCTIVITY VALUE

	A low range of edible varieties	An average range of edible varieties	A diverse range of edible varieties
A majority of inedibles	Low	Low - Medium	Medium
A mixture of edibles and inedibles	Low - Medium	Medium	Medium - High
A majority of edibles	Medium	Medium - High	High

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