CANTERBURY CATHEDRAL LANDSCAPE DESIGN

Isometric showing the essential landscape elements.

A Pilgrimage trees, in two rows are introduced to structure the south and west edges of the precincts.
B Between the trees and the precinct edge a beautiful stone paved periphery organises pedestrians and vehicles.
C An extraordinary open space, a garth, within the colonnade of trees presents the Cathedral over a rich and biodiverse landscape.
D A new entrance square stands in front of the West Porch, dimensioned to allow for the Cathedral's entire congregation to gather outside.
E A dignified stone entrance mat stands in front of each of the Cathedral's public entrances introducing a common language of entry and welcome.

View of the Cathedral in its new landscape from the approach through Christ Church Gate

Section through the two cloisters

Formal green spaces

Kings School

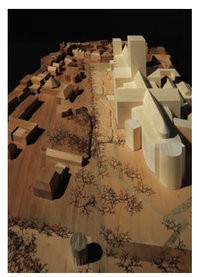
The existing garth from the cloister

The existing cloister

Orchard perimeter, Faversham

Hop field perimeter, Chilham

Apples, Brogdale Farm



View looking west over the water tower

CHARACTER

The northern areas of the Cathedral precincts and the conjoined King's School are characterised by the formality of the green spaces. These clearly defined spaces direct a series of carefully composed elevations that enclose them. The size, height, location and materials of the buildings emerge as a response to the spaces that they enclose - the buildings are the result of the desire to create the spaces rather than the spaces being the consequence of the buildings.

The southern precincts with their direct and physical relationship to the walls of the Cathedral are borne of the opposite process. The southern precincts are governed by the a priori form of the Cathedral and the ad hoc nature of the walls and buildings that form the inner face of the deep and hollowed boundary condition. The surrounding space of the precinct and its character are the result of the pressure exerted by the Cathedral to preserve its dignity in the midst of the chaos of a medieval city and the historical economic pressures of the city pushing inwards from the city walls. The presence and reading of the Cathedral in its extraordinary mediaeval setting through Christ Church Gate is spatially and experientially critical.

This contested notional 'ownership' of the southern precinct has historically resulted in a varied collection of uses. While the land has remained under the ownership of the Church the uses have, at one time or another, 'belonged' to either the city or the Cathedral. This combination of physical and occupational pressures has led to a place of great character but the current 'picturesque' paths and areas of grass denies it the potential of its previous guises as a thriving, working landscape. We see our proposal as seeking to introduce elements of construction, both hard and soft, that mark out spaces for foreseeable patterns of use and occupation. The characteristics of these spaces are such that they can be tuned by the occupants to the changing values of the time without denaturing the architecture - a landscape infrastructure.

COLONNADE

The agriculture of hops and fruit orchards, so familiar in the landscape of north Kent, relies on the creation of an orthogonal grid of trees or frames. The resulting unworked perimeter takes up the imperfections of the field lines and creates a varied and ecologically rich edge condition. Our strategy is to create a series of varied edge conditions that allow for the rich inhabitation of the precinct and an extraordinary field in the midst that provides a beautiful mid ground to views of the Cathedral.

Two rows of fruit trees are introduced to structure the southern and western edges of the precinct, giving a new legibility to the space. The trees form a planted colonnade, analogous to the cloister to the north but also the square at the heart of Kings School. The area formed between the trees and the precinct edge is paved with stone and on a prosaic level is used for the easy movement of people and goods. The area contained within the trees and the southern face of the Cathedral forms an extraordinary garth that directs visitors and presents the Cathedral over a rich biodiverse landscape.

The colonnade of trees formalise the space in relation to the Cathedral and creates a mediating cloistered space to the domestic scaled architecture of the bounding buildings. The arboreal colonnade delicately takes its rhythm from the bays and buttresses of the Cathedral before being gently absorbed into the trees of The Oaks, linking the new to the existing.

The garth within the trees is inhabited by an astonishing garden of ornamental grasses, sedges, flowering perennials and sub-shrubs. The planting within the garden is low and reaches to the edge of the Cathedral allowing the building to rise from a varied and diverse sea of species. From Christ Church Gate the planting appears as a solid field but concealed paths meander through the planting creating a rich sensory experience.

PILGRIMAGE TREES

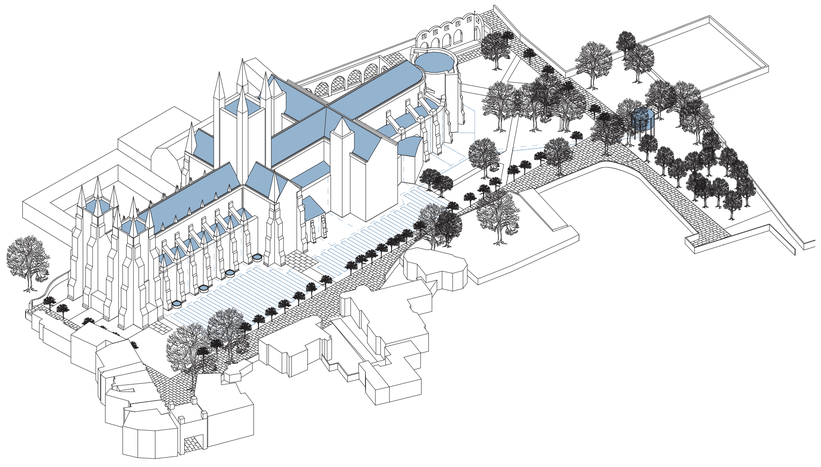
Brogdale Farm in nearby Faversham is home to the National Fruit Archive - a unique gene bank of over 4,000 varieties of fruit, the largest collection of fruit trees in the world. The majority of species are grafted to quince trees giving huge variety of fruit and leaves within a consistent tree size. This strategy produces an environmentally robust tree with the sizes of the various varieties easily moderated for scale and harvest.

The lines of trees forming the colonnade will be created using a similar grafting process but the criteria for the fruits is derived from various pilgrimage routes that set out from Canterbury Cathedral. A suitable fruit tree will be carefully chosen for its dimensions and shallow roots. Onto these root-stocks and boles will be grafted fruit found along the various pilgrimage routes from Canterbury to Rome, Santiago de Compostella, Rochester and Chichester. From a seemingly uniform tree a huge variety of fruit will grow, the trees will flower and fruit at various times of the summer with a wide variety of sizes, colours and fruits - a living lesson in horticulture along the pilgrimage routes. The exact height of the trunks, and the size of the fruiting branches, will be gauged in order to provide the optimum mix of enclosure and openness: a space is defined, but the spaces beyond remain visible.

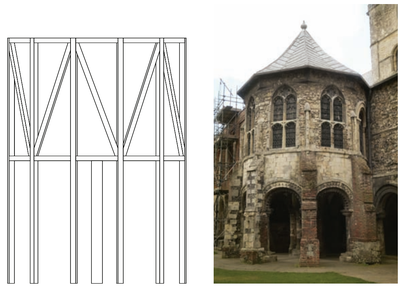
Plan view of the site model showing the proposed landscape strategy

Site plan 1:750

1 Christ Church Gate mat
2 South Porch mat
3 West Door mat
4 South Transept mat
5 Memorial Garden mat
6 Exit ramp/mat
7 Library entrance mat
8 Mandale Fossil paving to cloister
9 Trass lime entrance square
10 Pilgrimage fruit trees
11 Perennial planting
12 Stone ledgers
13 Stone models
14 Stone water buts
15 Stone table
16 Trass lime paths
17 Hop frame and café garden
18 Mulberry tree
19 Lote tree
20 Stone and cob benches
21 Green oak water tower
22 Flowering meadow
23 Woodland garden
24 Nettle bed
25 Location of mat for alternative entrance
26 Parking
27 Half timber/cob wall
28 Holly hedge



Isometric showing rainwater harvesting and gravity irrigation system



WATER
Water has long been of vital importance to Cathedral life. The historical cistern to the north of the Cathedral was used to store the water brought in from outside the city via an aquaduct and a series of settling tanks while rainwater from the roof was collected in the stillatory, behind the slype. An incredible system of sewers aided in the removal of waste water.

During this time of rapidly changing weather and fluctuating rainfall water is both a valuable resource to be respected and a hazard that must be mitigated. When an inch of rain falls in the city the Cathedral roof collects 250 tons of water, the volume of a swimming pool. During periods of heavy rainfall the sheer volume of water collected imposes a significant load on the Cathedral's mediaeval sewers and the connecting public sewer network.

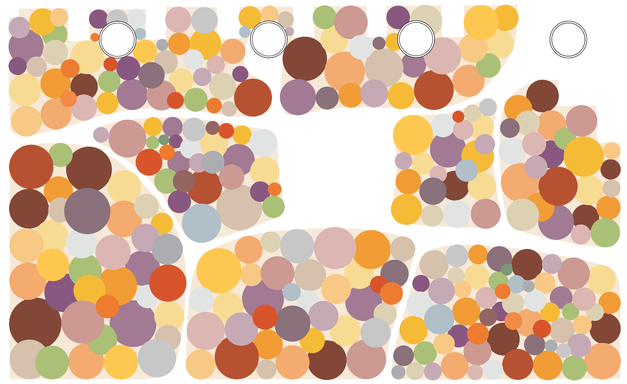
We propose to attenuate, cleanse and harvest the on site surface water by repurposing it for landscape irrigation and providing a degree of water storage to minimise peak outflows into the sewer network. The aim is to utilise the Cathedral's natural resources of water, gravity and sunshine to create a drainage and irrigation system that supports a new biodiverse landscape that greatly reduces the load on the existing sewer system.

A new green oak water tower will be built within The Oaks. The new tower will sit at canopy level within the trees and occupy the same approximate footprint as the historic water tower to the north of the Cathedral. Rainwater from the Cathedral roof will be delivered to the water tower using the height differential between the Cathedral gutter inlet level and the water tower as the driving force.

An irrigation system will carefully control the delivery of water from the tower under gravity to where it is required within the new landscape. Water will be provided at night, below ground directly to the plant roots, maximising water uptake and minimising evaporation. Due to the water pressure generated by the height of the water tower and the slightly east to west down-slope along the precinct, pumping is not required to operate the irrigation system. At the base of the wall to the south of the Cathedral aisle will sit four carved stone water butts, analogous to the four rivers that flowed into the garden of Eden. These butts will balance the system and provide a valuable source of sweet water for wildlife and localized planting.

The majority of the hard surfaces will be water permeable, greatly reducing the water run off. Non-permeable surfaces will drain to the planting with perimeter species carefully selected to remove toxins.

Anaphalis margaritacea
Andropogon gerardii
Aquilegia vulgaris
Artimisia ludoviciana
Aster cordifolius
Calamagrostis acutiflora
Centaurea montana
Chasmanthium latifolium
Echinops ritro
Euphorbia griffithii
Ephimedium rubrum
Eryngium yuccifolium
Filipendula rubra 'Venusta'
Helenium 'Rubinzwerg'
Helleborous x hybridus
Iris sibirica
Knautia macedonica
Lavandula augustifolia
Miscanthus sinensis
Perovskia atriplicifolia
Persicaria amplexicaulis
Stachys byzantina
Stipa gigantea
Succisa pratensis
Thalictrum aquilegfolium
Veronicastrum virginicum



Perennial planting plan

PLANTING
The planting of the garth will bring the colours, shapes, smells and sounds of the countryside into the Cathedral grounds, setting a new standard for combining biodiversity, beauty and sustainability in a heritage environment. This landscape brings the beauty and feeling of spiritual sustenance that many people find in nature into the Cathedral's surroundings, at the same time creating an urban oasis for wildlife and an ecological link across the city to the wider countryside.

Seasonal change is crucial. The planting is herbaceous, it is cyclical, and this seasonal dynamism is key to building a sense of visitor engagement with the changing seasons; visitors will want to know "what's going to be in flower during our next visit?" The first colourful scattering of bulbs and spring flowers will greet visitors with a sign that winter is ending but will also feed the first adventurous bees, summer sees a growing carpet of flowering perennials and low shrubs, while autumn brings an exuberant mass of ornamental grasses and taller flowering perennials with their attendant butterflies. Grasses and perennial seedheads will be magically lit up by low winter sunlight, and attract flocks of goldfinches and other birds seeking seed.

The bulk of the planting will be based on perennial and ornamental grass species to create a softly textured, visually rich and ever-changing natural effect. Species used will include locally native wildflowers and other perennials chosen for their visual appeal, ability to support biodiversity and reliability over the long-term. An 'intermingled' planting style is proposed which captures the magic of wildflower meadows at a more robust scale and nature, creating a sense of the unexpected.

The planting is spectacular on a large scale such as this but also holds a lot of detail and complexity on the small scale. The planting will impress, but through its softness, careful colour palette and fine visual texturing there is no danger of it competing with the Cathedral, instead acting as a foil and complement.

The planting style allows for a great deal of flexibility in its response to site environmental conditions and to the need for a greater or lesser height and density of planting. Taking advantage of the scale of the Cathedral the planting height will vary from around waist height to just over head height. From entering Christ Church Gate the planting will provide a strong foreground for viewing the Cathedral, similar to that experienced from the Campanile Mount. Once immersed in the scents and sounds of the planting the fine stonework and scale of the Cathedral will provide an ethereal presence. Children, excitedly hiding, will be enchanted by exploring the paths amongst the foliage. The perennial-based planting of the garth will end at a lote tree and a mulberry tree, planted at the location of the gate to the monks' cemetery.

HOP GARDEN
The space leading to the Cathedral shop will maintain its current use as an exit route and place for refreshment. The ramp itself will be re-laid in Hopton Wood with a new bronze handrail. Part of the space will be planted with hops, trained onto an abstraction of traditional hop trellising made up of green oak staves. During the winter the beautiful oak frame will trace delicate lines across the new trass lime floor while in the summer the hops provide shade for the cafe and add to the ecological matrix.

Migrant Hawker

Perennial planting

BIODIVERSITY
The new landscape will be inherently highly attractive to desired species of native fauna, offering a huge increase in habitat value for Kent Urban Quality Indicator species, and creating an exemplar site of environmental stewardship.

The carefully considered design and nature of the new landscape provides integrated refuges for various species. The shaded north face of the water tower facing into the woodland creates homes for Pipistrelle Bats, Housemartins. The widened plant and insect life encourages common birds and bats to inhabit the niches and crevices of the existing precinct walls. Increased ground cover will provide a habitat for a resident family of hedgehogs, helping to balance the populations of slugs and snails. Refuges for beneficial insects that eat aphids and other pest species, such as lacewings and ladybirds, are integral to the proposal. Boulders of un-rendered cob will be located deep within the planting of the garth, creating ideal habitat for uncommon burrowing hymenoptera.

Not only is food and refuge provided for key wildlife but also the life-cycle needs of many species are catered for. Peacock, Small Tortoiseshell, and Red Admiral and Holly Blue butterflies will thrive in the new landscape; multiple nectaring opportunities provide for larvae growing and the inclusion of a nettle bed gives a secure location for development. Orange Tips will breed on the Mustard Garlic within the shade of The Oaks. The curious Buttoned Snout Moth and Peacock butterfly utilise the leaves of the hops. Feeding and commuting bats will thrive in the new insect-rich havens and control any biting insects that may emerge.

Stone paved cloister and the planted garth separated by the colonnade of pilgrimage trees

ORIENTATION & SIGNAGE
The two lines of trees break at the south-west corner forming an entrance to the new space and guiding visitors clearly towards the traditional main entrance. The extraordinary view through Christ Church Gate of the Cathedral is maintained and heightened

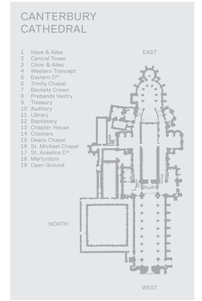
Three large stone models of the Cathedral will occupy the edge of the entrance square by the West Porch. The models will show the Cathedral in its three critical phases of development at a scale uncannily reminiscent of the stone lids of sarcophagi. Each model will be carved from a block of stone, around two metres by one metre, with the base laid flush with the trass lime surface.

The directional and informational signage will follow the horizontal nature of the landscape and respect the many ways that the Cathedral is used and experienced. Large pieces of flat stone will be laid flush with the floor following the character of the stone ledgers around the Cathedral. The alternative use of the word 'ledger' will be invoked and the stones will be carved with information, plans and directions. This strategy allows frequent visitors to ignore the signs as they are subsumed into the familiar language of stone ledgers yet more patient and observant visitors can spend time searching for knowledge with a heightened awareness of the story that can be told by carefully studying the well-worn map beneath their feet. An enormous amount of visitor information can be presented without visually impacting critical liturgical function and the spatial experience of visiting the Cathedral in its extraordinary settings. Smaller pieces of stone will be laid adjacent to each tree and will provide information about the fruit, its original location and its historical significance.

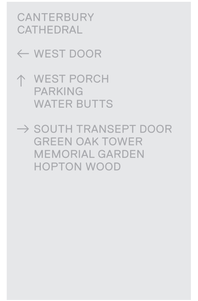
View to the South Porch over Christ Church Gate showing the break in the trees

View from the east over The Oaks

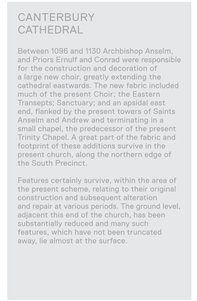
Stone ledger in the cloister



Cathedral plan



Directional sign



Information

Ledgers