

# A unique 'sense of place': Christ Church Bioversity



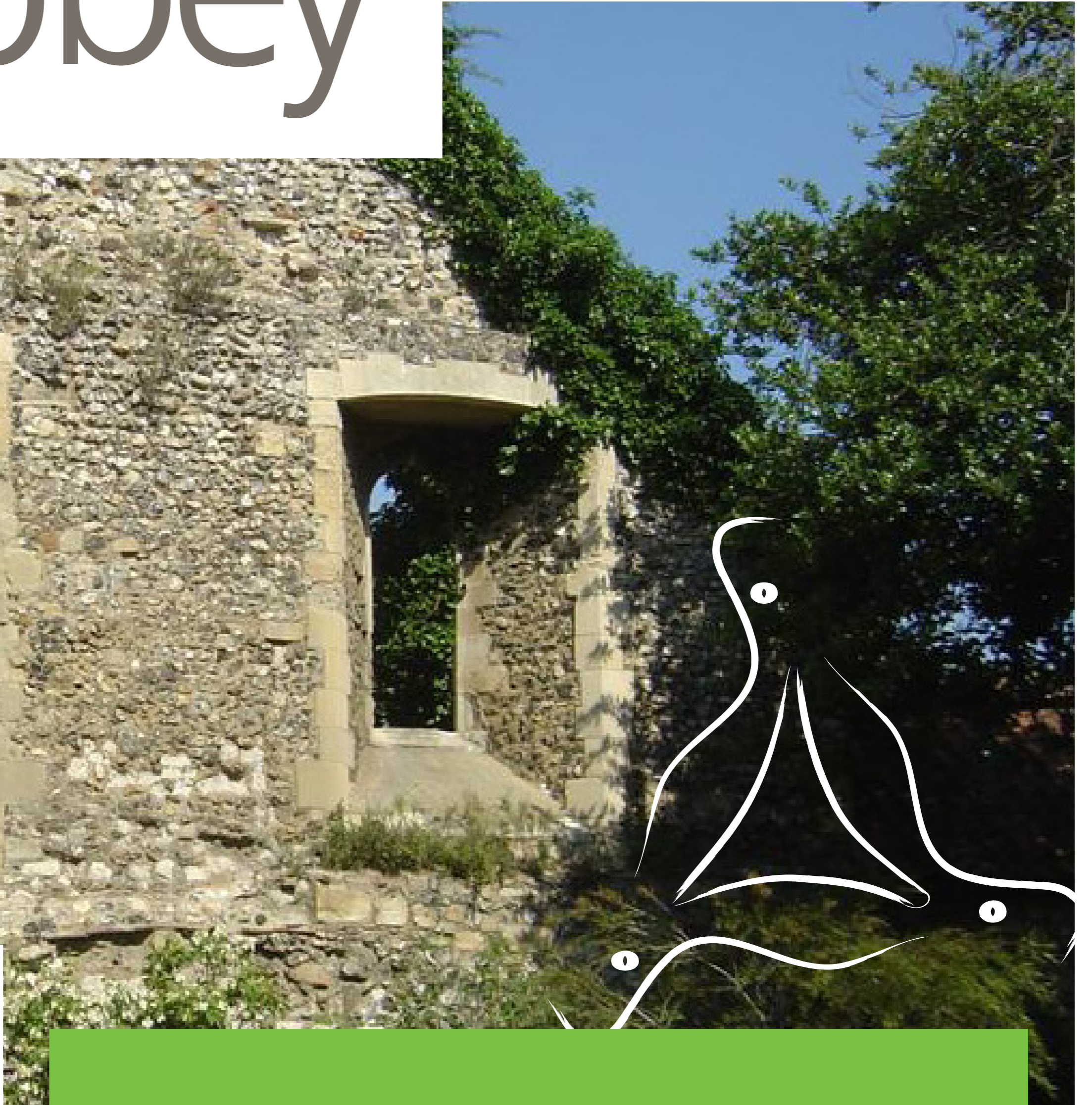
**Bioversity** is our response to the need to nurture the environment in which we work and the communities we serve. It involves the stewardship of our green spaces within the Canterbury UNESCO World Heritage Site (WHS) (designated 1988) – which in our case includes the outer precinct of St Augustine's Abbey. The Bioversity initiative focuses specifically on cultural aspects of biodiversity in relation to the history of the site, explicitly linked to the fact that it has been a centre of knowledge, community and stewardship in our city for over fourteen hundred years.

The **UNESCO World Heritage Site** includes Canterbury Cathedral, St Augustine's Abbey and the Anglo-Saxon church of St Martin. Historically Canterbury is the cradle of English Christianity and associated with the development of the Christian church in Britain since the 6th century. Since the 11th century it has been the seat of the Primate of all England. Following the martyrdom of Thomas Beckett in 1170, it became a popular place of pilgrimage. Excavations on our site by the Canterbury Archaeological Trust provide evidence of Bronze Age settlement as far back as 800-900BC, and Anglo-Saxon industrial activity from 750 AD.

**Stewardship of the living world** is a strong ideal with which all Christ Church's staff members, visitors and students are able to empathise, whatever their cultural or spiritual background or their view of the 'environmental agenda'. It provides continuity between past, present and future and highlights our unique 'sense of place'. Good stewardship of the World Heritage Site reflects our own wider concerns for the environment and helps us to make direct links with other day to day issues of environmental concern (e.g. waste management, carbon emissions, sustainable use of resources) which may otherwise be difficult to capture in a holistic manner. Christ Church Bioversity is not simply a 'heritage' initiative, but represents Christ Church's mission as a university's serving its region and communities.



# Augustine and the abbey



Augustine, accompanied by forty monks, was sent from Rome in AD 597 by Pope Gregory the Great. Augustine, with the blessing of the Kentish King, Ethelbert, and his Christian Queen Bertha founded the monastery of St Peter and St Paul (later renamed after Augustine) outside of the city walls. The abbey became the burial place of the kings of Kent. The abbey was run by Benedictine monks and despite various disruptions, including Viking raids, it grew and flourished for over nine-hundred years until 1538, when Henry VIII dissolved the monasteries.

The outer precinct of the abbey contained a brewhouse for making ale, a bakehouse, barn and cellarer's hall. In 1320 a walled vineyard was added. There were almost certainly orchards and allotments. Stewardship of natural resources was fundamental to the early monastic community, with their requirements for self-sufficiency, health and spiritual well-being. This tradition continues with Christ Church's own research work within the geographical, environmental and biological sciences on natural pest control, environment monitoring, and on conservation and biodiversity.

Christ Church Bioversity is enriched by cooperation and partnerships between the University and other stakeholders in the World heritage Site. The Bioversity initiative involves developing the biodiversity potential of the site by nurturing current sites, and through innovative restoration and management elsewhere. This includes planting species and rare varieties that reflect the monastic and other traditions of the site, as well as the wider Kentish landscape (e.g. fruit production) and environmental heritage. The initiative looks to the future, not just the past, and engages with such issues as the protection of local heritage varieties of fruit trees, protection of regional biodiversity, and enhancement of community and individual health and well-being. The rationale for choosing to focus on biodiversity is explicitly linked to the cultural context of the World Heritage Site and the cultural, spiritual and educational values of the key institutions involved in the WHS.



# Bioversity projects: Jubilee orchard and wildflower area



## Jubilee orchard and wildflower area

- planted to enhance the wildlife and biodiversity of the campus as part of the University's 50th anniversary celebrations in 2012. Formal lawns, low in biodiversity interest, have been replaced with a mixture of native wild flower and locally sourced varieties of Kentish apples and cobnuts. This project is part of the University's commitment to developing a sustainable learning, research and recreational environment for its students and staff.

The University has carefully sourced heritage varieties of fruit trees to reflect the site's history, but not to mimic it. The area forms part of the outer precincts of St Augustine's Abbey, where the monastic community would have produced much of its own food and drink (this planting is in the approximate location of the Abbey's vineyard). The site was a commercial orchard prior to the building of Christ Church College.

Heritage varieties of apple include, 'Beauty of Kent' a popular 'cooker' in Victorian England, but now considered too unsightly for modern commercial use, and 'Cat's Head', thought to be an 11th century Norman introduction to England, and like many old English varieties it too is primarily a culinary apple. Other varieties planted in our orchard include 'Cascoyne's Scarlet', originally developed as a dual purpose variety by Mr Gascoyne at Bapchild Court, Sittingbourne (the town's motto – "Known for their fruits"), in the late nineteenth century. This apple is a reminder of the importance of Kent to as an innovative region for horticultural development and a link to current degree programmes such as Plant Science at Christ Church.

The cobnut is a cultivated variety of hazelnut. Cultivated hazelnuts, also known as filberts, have been cultivated in Kent, in orchards or 'plats', since at least the 16th century. The variety known as the 'Kentish Cob' originates from about 1830 and has become the dominant commercial variety.



# Bioversity projects: The Tangled Bank



**The Tangled Bank** - This wildflower bank is one of several wildflower areas established by the University throughout the World Heritage Site and reflects the University's education and research interests in conservation ecology, plant sciences and biogeography.

The wildflower bank was originally sown with a 'long season meadow mixture' – which included species such as Common and Greater Knapweed, Lady's Bedstraw, Meadow Cranesbill, Ox Eye Daisy, Common Toadflax, Cowslip, and Dark Mullein. The flowers attract a wide range of birds and insects that feed on their nectar, leaves and seeds. The site is actively managed by our Estates Department to ensure that diversity is maintained by mowing each year only after the flowers have seeded. Mowing and removal (for composting and use elsewhere on our site) ensures that the site does not become too nutrient rich, which would result in the wildflowers being overwhelmed by more vigorous grass species.

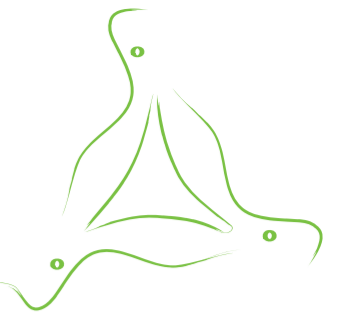
The bank is named to celebrate another important Kent location associated with biodiversity, Down House (UNESCO list for proposed WHS status). Down House was Charles Darwin's home from 1842 until his death in 1882. Here he wrote most of his key works on ecology and biodiversity, including his most famous book - *On the Origin of Species*.

"It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us."

Charles Darwin (1859) *On the Origin of Species*.

The ultimate aim of Christ Church Bioversity is to develop ecological linkages, in partnership with others, across Canterbury and beyond by creating and maintaining urban habitat sites, such as this wildflower bank, as 'green stepping stones'.





Christ Church Bioversity involves the creation of a unique identity and sense of place for our University, based on its central location in the Canterbury UNESCO World Heritage Site.

The focus of the 'Bioversity' concept is the enrichment of student and staff experience through a transformation of our site into an urban biodiversity hub which reflects its rich heritage, but which also focuses on the future through our concern for social and environmental responsibility. Biodiversity is a fundamental to all aspects of life; without diverse ecological systems, and the plants, animals and other organisms that inhabit them, we could not survive.

# Mural ecology

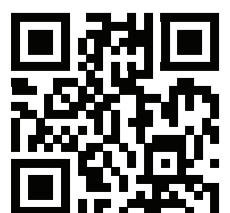
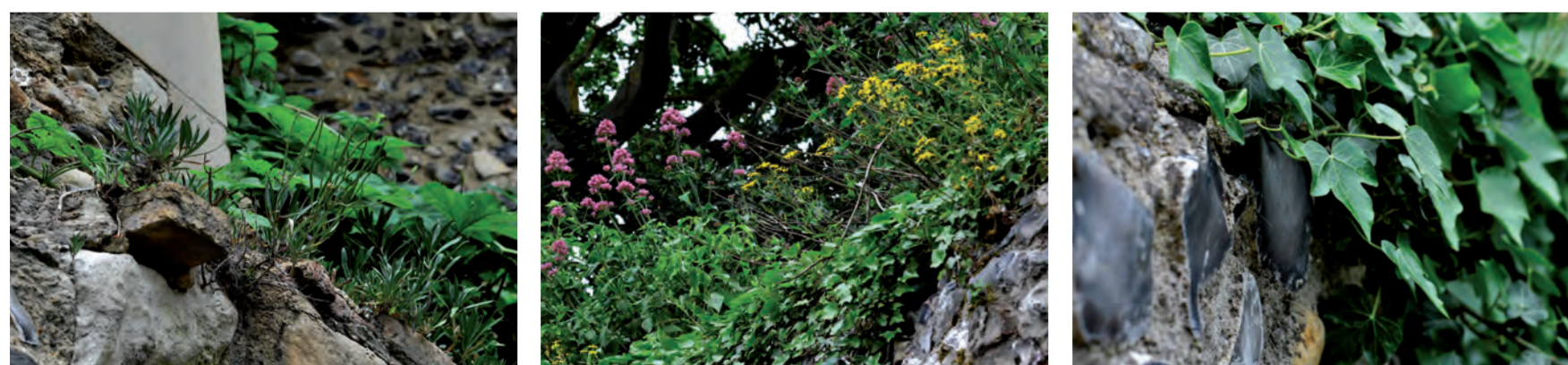
The old flint, brick and stone walls that surround the main campus of Canterbury Christ Church University originally enclosed the outer precincts of St. Augustine's Abbey. These, together with the end wall of the old bakehouse and brewery close to Coleridge House, are the only exposed physical remains of the Abbey on the University's site, but provide continuity with the Great Gate (King's School entrance) and the ruins of the Abbey Church itself.

The walls are home to a diverse range of plants, with wonderful names evocative of their habitat, such as the Ivy-leaved Toadflax (*Cymbalaria muralis*, pictured above) and Pellitory of the Wall (*Parietaria judaica*).

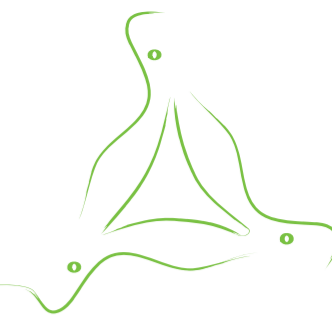
Many of the wall plants are natives, for example, the Great Mullein (*Verbascum thapsus*), which grows in

the rubble on top of some of the old walls. Several other species are 'naturalized'; introduced to Britain they have become 'new natives', acclimatised to our environment and ecologies. Naturalised species include the dramatic Red Valerian (*Centranthus ruber*), which grows in profusion from our walls.

The plants themselves offer food and habitat for a wide range of animals, adding significantly to the biodiversity of the site. Even the large dusty, seemingly sterile swags of ivy provide cover for small invertebrates (insects, spiders, etc.) and therefore food for birds such as wrens and titmice.







# Physic Garden

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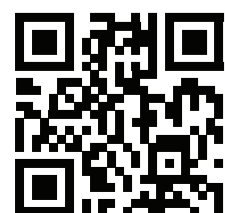
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The Physic Garden reflects the creativity and diversity of the education provided by Christ Church and celebrates developments in health, education and plant science throughout history. It is situated in a site that was formerly part of the outer precinct of St Augustine's Abbey. Here the monastic community would have planted and tended their own medicinal gardens for use within the abbey and to tend to the needs of other people. They were known for being great innovators and educators, as represented by the Canterbury Herbal created at St. Augustine's abbey c. 1070-1100AD. This magnificent illustrated manuscript is now held in the Bodleian Library, Oxford.

Many of the plants in our garden have been based on those known from the Chelsea Physic Garden which was founded in 1673 as the "Apothecaries Garden" which was to help to teach apprentices the correct identification and use of plants.

The aim is to maintain the beds with an array of medicinal plants from the past, present and possibly the future, covering both general and specific therapeutic applications, and use this as a living learning resource for students, staff and visitors.

[www.bodley.ox.ac.uk/dept/scwmss/wmss/medieval/mss/ashmole/1431.htm](http://www.bodley.ox.ac.uk/dept/scwmss/wmss/medieval/mss/ashmole/1431.htm)



[www.canterbury.ac.uk/bioversity](http://www.canterbury.ac.uk/bioversity)