

# The Philadelphia experience

Mark Finnegan spent 2003 at Longwood Gardens, Philadelphia, as part of his internship programme. He offers a practical guide for young horticulturists who are applying for similar internships, and reports on the displays, plants of interest, history, research and educational programmes that Longwood provides.

Less than an hour from downtown Philadelphia, in the Mid-Atlantic region of the US is a 405ha estate called Longwood Gardens. The gardens attract over 900,000 visitors each year. People come to witness colourful displays and pick up ideas for the home garden. At present Longwood Gardens has 120ha of display gardens and 20 indoor gardens which include the Silver Garden, Cascade Garden, Mediterranean Garden, Orchid Display and Acacia Passage.

The gardens also have one of the largest conservatories in the world, giving them an edge over others as it can display masses of flowering plants even in the depths of winter. It is interesting to note that Longwood's peak visitor-season is winter, when other gardens are closed. The Christmas display has made Longwood a 'must see' garden.

Longwood Gardens is financed through admission fees and interest from the Pierre DuPont Trust. Since Mr DuPont's death in 1954 management of the garden is the responsibility of a director working with the Board of Trustees. Longwood Gardens is a non-profit organisation employing 200 people with the assistance of 200 volunteers. Industrialist Pierre S DuPont grew up in

Mark visited Mount Cuba, Delaware, on one of the weekly field trips run by the intern programme.



*Mark Finnegan trained at the National Botanic Gardens Dublin, Ireland. On graduating in 1997 he took up a position with Duchas (the Irish heritage service). Since then he has worked as a horticulturist at the Royal Botanic Gardens Melbourne, Australia, specialising in tropical plants. In 2003 he completed a one-year internship programme at Longwood Gardens, Philadelphia, through the Ohio State University's (OSU) International Intern Programme.*



Masses of spring flowering bulbs on the Flower Garden Walk.

nearby Delaware. In 1906 he decided to purchase a country property as a retreat from his professional life as chairman of the General Motors Company and the DuPont Company.

## Preserving specimens

DuPont decided to preserve the old specimen trees planted there in the 1700s by the Pierce brothers who purchased the land from William Penn. Then work began on a Flower Walk near the house.

By 1920 work began on the construction of the conservatory. This was an ambitious project due to the scale and cost. It is estimated DuPont spent over \$100,000 dollars completing the construction. The construction also provided valuable employment to local people.

One of the aims of building such a large conservatory was to grow fruit crops out of



season, such as oranges, melons and bananas and to display tropical plants all year round. Mr and Mrs DuPont frequently held dinner parties in the conservatory and garden.

Each season heralds the arrival of a new festival to celebrate Longwood's horticultural skills and cutting edge designs. The first festival of the year is the 'Welcome Spring' festival in mid-January. This starts with the planting of thousands of forced spring bulbs in the Main Conservatory, at a time when snow is still covering the ground outside. Special programmes and tours are held during this time.

One of the best times of year to see Longwood Gardens is when the outdoor bulb displays are in full bloom. This is usually late March or early April when 100,000 bulbs, such as tulips and daffodils, that were planted the previous autumn, burst into an array of colours including yellows, reds, white and pink. The ornamental spring-flowering trees also put on a show, among them the magnolias and flowering cherries. Their flowering signals the end of winter and that the warm humid summer will be returning soon.

The warm summer days and nights are perfect to experience the Festival of Fountains. The festival is part of a summer-long programme of open air theatre, musical events, fountains, fireworks and light shows. The fountains were inspired by those that Mr DuPont saw during his visits to the finest gardens of the day in Europe, including Versailles. On returning to Longwood he designed a number of formal water gardens based on these visits. Today the Main Fountain Garden and Open Air Theatre are the focal points of the Festival of Fountains. Several times during the summer a firework display is added to the fountain show. These night shows can attract several thousand people.

## 'Mum fest'

The end of the summer events and the cooler temperatures herald the arrival of the 'Mum Fest', or more correctly, the Chrysanthemum Festival. Preparation for this October display begins in January with the propagation of cuttings from stock plants. The Main Conservatory chrysanthemum display alone holds 10,000 'mums'. The Flower Garden Walk is also planted with chrysanthemums giving visitors a broad range of colours and types. The indoor display is amazing with chrysanthemums trained into large spirals, spheres and cascades.

The tradition of growing 'mums' like this including the well known 'thousand bloomers', can be traced back to Japan. The growing and training of these plants at Longwood is the responsibility of Japanese gardener, Yoko Arakawa.

The final but most lavish display is the 'Christmas Season' display. This is installed in time for Thanksgiving, which is the last week in November. Installation of this display begins in September when thousands of lights are placed on the mature trees in the gardens. Thousands of plants, including poinsettias



*The Christmas display in the Main Conservatory at Longwood in 2003.*

*Caryopteris Alley and Topiary garden.*





*'Mum' Fest display in the Main Conservatory.*

and amaryllis are grown in Longwood's production houses to a precisely scheduled timetable. Planning starts years in advance with design teams choosing plants and colour schemes and formulating the plans. Even on the cold nights of a Pennsylvanian winter it is truly worth seeing the outdoor Christmas lights and colourful indoor displays.

## Horticultural education

Longwood is deeply involved and committed to providing quality horticultural education. Several adult education programmes are on offer ranging from continuing education courses to a Graduate Degree Programme.

The continuing education courses on offer include garden design, floral arrangement and botanical art. A series of courses offered in ornamental horticulture include botany, evergreens, deciduous trees and shrubs, annuals and groundcovers. These courses are offered part-time during both the day and evening. If successfully completed the student is awarded a certificate by Longwood Gardens. The series takes two years to complete. Many people on these courses are home gardeners, landscapers or people wishing to change careers.

Another option available to people who wish to gain experience at Longwood is the Professional Gardener Training Programme. This two-year full-time course offers students a mix of classroom and practical based learning experiences. Candidates from all over the US are interviewed for these highly sought after places. The students are provided with free educational courses, free housing and

credits for university. Graduating students take up positions within the horticultural industry as estate gardeners, nursery growers or landscapers.

Also, a post-graduate Masters Degree Programme is held in conjunction with the University of Delaware. This specialises in public horticultural management and usually takes two years to complete. The six places on offer each year come with generous funding. Many management positions in major public gardens in the US are filled with graduates from the Longwood Graduate Programme.

The Internship Programme at Longwood probably has the best variety of any public garden. Internships are offered in arboriculture, greenhouse production, indoor display, outdoor display, sportsturf, integrated pest

management, curatorial, visitor education, performing arts and research. Internships can range from three months to a year. New graduates take up internships to gain hands-on experience in their chosen area of study. The intern programme caters for over 60 people each year.

The International Gardener Programme takes two people twice a year from overseas. This programme offers young horticulturists from overseas a chance to experience an American garden for one year. Candidates from countries including Canada, Chile, Cameroon, Croatia, Scotland, Korea and New Zealand have taken part in this programme recently.

Another option for young horticulturists

*Harvest Festival pumpkin display*



**Mark Finnegan sets out the stages involved in his application for an internship at an overseas horticultural institution.**

**Preparation:** The first step when applying for an internship overseas is deciding on the type of internship or garden that will interest you most. In the US there is a wide selection of public gardens offering internships. These include many different types of gardens such as, botanical, display, native, tropical or formal. It is essential to spend time on the Internet or in a library researching the gardens and internship possibilities. My own interest was in finding a public garden with good plant collections and an international reputation for quality.

Another consideration when choosing an internship is the offer of free housing and pay. Internships offering less than \$10 an hour but with free housing and utilities may work out better than internships paying over \$10 but without accommodation. The cost of living in East Coast US can be quite high.

**Planning:** Once you have decided the garden or internship that best suits you, contact the garden for details of the application process. Many of the larger gardens like Longwood Gardens sponsor visas for their international interns. Other smaller gardens may wish you to use an international intern exchange programme such as that of The Ohio State University's (OSU) International Intern Programme. This programme offers young people from overseas an opportunity to experience American horticulture. The programme not only caters for people interested in public gardens but for all sectors of the horticultural industry including landscape gardening, garden centres and commercial nurseries.

I opted for the OSU International Programme and found it most helpful and useful. Within a short time of completing the application form a possible 'host' was located. The programme has a large network of contacts, which include former participants on the programme or other reliable host employers.

Once a possible 'host' was found I contacted them directly to discuss details of the internship. The host was Longwood Gardens which was top of my wish list. I gladly accepted the offer of a greenhouse production internship.

Longwood Gardens agreed to allow the OSU International Intern Programme work on my visa application. At this stage of the process both the host and intern pays a small fee to the exchange programme. It is vital to have medical insurance cover when travelling to the US. This is also arranged through the OSU International Intern Programme with average policies costing almost \$700 for one year.

**Arriving:** The day before I began my internship at Longwood I travelled to Columbus, Ohio, to meet the staff of the OSU International Intern

Programme. Here orientation took place, which was very useful for my year in the US. This covered everything from advice on buying cars to safe work practices. Then I travelled to Philadelphia Airport and was greeted by the Student Programme's intern. The next few days involved more orientation and training on machinery. Most employers will expect their interns to have driving licences and cars.

**Duties:** Interns are involved in assisting the gardeners in display areas or the growers in the production greenhouse with day-to-day tasks. Most internship positions involve you for 35 or 40 hours per week starting each morning at 7am.

Production interns have daily duties of watering, potting, staking and pruning. Other duties that arise from time to time include making hanging baskets or installing displays.

One of my most memorable experiences at Longwood was the installation of the Christmas display. Production of the crops for this display began in early summer in Longwood's modern multi-million dollar greenhouse facility. Several varieties of poinsettias are grown each year in large numbers and colours ranging from pink white to traditional red. Also thousands of bulbs are forced for display in the conservatories from Thanksgiving to New Year.

It takes the horticulture staff, together with volunteers, three or four twelve-hour days to complete this display. I was involved with the planting of the Main Conservatory and the Floral Tree in the DuPont house. It was a great experience to see Longwood's design innovation combined with technical ability.

**Education:** Since most internships have an educational emphasis, Longwood was an ideal host when it came to providing educational opportunities. One of these opportunities was the weekly field trip organised by the Student Programmes Office. These trips involve visiting local private or public gardens and nurseries. Several day-long trips are arranged to visit well known gardens in New York, Washington DC and New Jersey. Mount Cuba in Delaware, Chanticleer in Pennsylvania and Dumbarton Oaks in Washington DC were among the best I saw.

Other learning opportunities included a range of evening courses held at Longwood Gardens. These I found very useful for learning about native plants and common plants in North American gardens. The courses are open to the public but interns and staff receive a large discount on the cost.

**Conclusion:** I would highly recommend spending time overseas on an internship. It can be a very rewarding experience as your horticultural knowledge will improve and you meet new people

from overseas to experience American public gardens is to apply through the Ohio State University (OSU) International Intern Programme. This highly organised and professional programme helps young people find the right internship for them in horticulture, greenkeeping or agriculture.

Many botanic and public gardens do not have the financial support to carry out plant hunting expeditions. However, Longwood's well-organised programme has produced many new varieties. Longwood's main aim is to find new plants that have potential as display plants. This would include plants that have a longer flowering period, an unusual colour or are cold hardy.

Once potential plants are sourced they are brought back to Longwood. Here the research team grows them on and their suitability is assessed. New varieties introduced by Longwood include *Victoria* 'Longwood Hybrid', *Caryopteris* 'Longwood Blue' and several varieties of canna and camellia. New Guinea Impatiens were first introduced

through Longwood's breeding programme. In the past few years Longwood's curator has visited China, Chile, Tibet and Georgia searching for new plants.

Other research programmes include the conservation of rare and threatened plants. Longwood has many fine specimens of rare palms and cycads on display in their conservatories. One of these includes a mature specimen of the cycad *Encephalartos woodii* from South Africa. It is believed that only 500 of these plants exist in cultivation. All of these came from a single specimen found in the wild in 1895. A programme is underway to propagate this plant in order to ensure its survival.

The restoration of the East Conservatory and Ballroom was started in January 2003. These buildings date back to the early 1920s and were beginning to decline. After much discussion and debate a new design was produced 'in house'. This project will feature an interactive children's garden with mock ruins, fun water displays and lots of activities

for children. The main area of the East Conservatory will be filled with pools, a canal, flowering plant display beds and indoor rooms. One of these rooms will feature a selection of bamboos. Large specimen exotic trees and citrus fruit trees will also form part of the display. The renovation completion date is late 2005. □

**Contact details:** If you require further information visit Longwood's website at [www.longwoodgardens.org](http://www.longwoodgardens.org) or call (001) 610 388 1000.

For more information on horticultural/agricultural internships in the US contact: Michael Chrisman, Director, The Ohio State University's International Intern Programme, Suite 360, 700 Ackerman Road, Columbus, Ohio 43202-1559, United States. Tel: (001) 614-292-7720/614-688-5653