# Christopher Lloyd Scholarship report – December

The declining temperatures over December caused a rush on emptying the Exotic Garden of all its tender plants, which then had to be potted up and moved to the appropriate glasshouse, heated glasshouse or polythene shack. Fascinating to see the Exotic Garden as it's pulled apart, leaving the skeleton of other shrubs that mark the space. Included in this are all the bananas, which were also wrapped over December. Each had a cane structure built around it or its group, in a loose tepee. This was then tied at the base with bailing twine, which gradually moved up the structure. Inside of this, hay and fern-fronds were stuffed and packed to form a wall-like nest, which was then further stuffed to create winter insulation. Following this, the cold frames needed hessian wrapping as nighttime temperatures began to drop rapidly into the unfavourable. The hessian has the potential to reduce the temperature by 4°c. The hessian was pulled back each morning so that the lights could be lifted and vented. Luckily for us, all the tenders were removed and wrapped when they were as soon after the snows came with great force and put the vegetative side of the garden to a standstill. The frames were frozen shut, along with the hessian being frozen and impossible to remove, initial thoughts to try and open them were swayed in favour of retaining as much warmth in the frames as possible…but at the cost of light. The garden really looked stunning in the snow, where it entered into a new dimension with light and colour playing a new tune across the plants. It was really quite exceptional! Even the bananas, tall and statuesque, wrapped up in all their hay and fern-fronds looked magical. They really shone in the snow with their mass of pale yellow sitting neatly against the bright white snow. The snow was really the moment they'd been waiting for. As for the frames, a week of darkness left many in wonder as to their state once the insulation was removed. A surprise to all when loses were very minimal, if at all. Some of the seedlings looked a little ropey and slightly anaemic but overall they were absolutely fine… I was particularly surprised there wasn't more blanching. I presume that the drop in temperature reduced enzyme activity meaning growth is halted and the plants were able to lie static, reducing any use of sugars. Really quite interesting to see the ability of the seedlings, particularly when they are so young and vulnerable.

Throughout these snowy days we were able to crack on with some additional seed sowing and sorting. Of particular interest was a delivery of seeds from Vácrátót Botanic Garden in Hungary. A large envelope of many genus and species was revealed. These were collected from the wild. Within this was a collection of ferns that really took my eye for propagating. A particularly sterile process to ensure cross contamination of spore and fungal growth is inhibited. To start, a clean 9cm pot is filled with a 1:1 mix of our home made John Innes No1 and Melcourt, our peat substitute that would act to replace the leaf litter in the wild. A piece of kitchen roll is then placed over the top and secured with an elastic band. To this, boiling water is poured over the top to sterilise the soil then left to cool. The spores are scattered onto the cooled surface then covered with a piece of transparent plastic and secured with an elastic band. All of these were placed in a tray with a little water. The tray was placed in the heated glasshouse, under the bench, where we find most of the self-sown ferns. This is left here until the new growth can be pricked out. Initially the soil will form a green film over the soil. This is the young

gametophyte stage that will go onto the mature gametophyte. From here the male reproductive sperm moves towards the egg in the presence of water. On fertilisation a young sporophyte is formed and this goes on to become the young fern. This process can take several years to carry out, but these will be able to be used around the garden or be sold in the nursery. Of all the propagation processes so far this one gave me quite the rush!

One aspect of the garden that has also really taken my interest is the lay of the land in which it sits. The topography. Great Dixter is placed in an exceptional spot. The site slopes gradually from the reservoir at the top, where it is also protected from cross winds by an array of trees. The topography runs downhill all the way to the woodland at the base. The south facing slope is a blessing as it captures the whole days sun, uninterrupted by any other structures or trees. It means it heats up slowly and creates a stable microclimate, more so than outside the grounds. Along with this is Great Dixters use of vistas that you stop and then step into. The clever design of the grounds encourages the viewer to perceive it through broken vistas that encourage you into the next space. When you step into each they open up even more. Of particular favourite to me is walking from the walled garden into the barn garden, where you walk up the steps the space expands and then falls down into the sunken garden. It's a very interesting piece of design that really sings throughout the December month. The spaces are misleading, normally showing you a framed image before you move through and it expands.

Other tasks that were carried out this month included sawing wood in preparation for winter and cutting back foliage around the garden to make space for *Galanthus*, mostly of ferns and the leaves on hellebores.

A rapid end to the last four months. Still an absolute blessing to be in this space as it teaches me not only about plants but all the garden encompasses, logistically, historically and architecturally. Onwards we move into 2023 as the bulbs slowly begin to show their faces and the winter buds begin to break on the *Lonicer x purpusii, Viburnum bodnantense* and *Chimonanthus praecox,* one of the sweetest scented of all the plants. Thank you again for aiding me in this training.

Rob Leonard Flack.