

establish the Garden as an essential part of the University, the local community and as a 'major player' in international plant-based activities. From the first, Hugh and Timothy agreed that the key priority was outreach, and they then spent 10 years building up an effective strategy, with Louise playing a key role. Locally, this has involved working with the Department of Plant Sciences and launching education programmes for schools and adults. The link to University science and biology teaching has always been pivotal, including Timothy's undergraduate teaching and other collaborations with Plant Sciences. More widely, links have been forged with other botanic gardens through PlantNetwork (of which the Garden was a founder member) and BGEN. Both Hugh and Timothy place a high priority on the Garden's international profile, and it has played a role out of proportion to its size in developing international conservation strategy.

Hugh points out that, unusually for a Botanic Garden "the plantings at Oxford are very closely geared to its current activities, and are encouraged to change on a year-by-year basis, reflecting new innovations in education and research". The second current stage of the strategy has been the restoration and development of the Arboretum. The different soil and greater size offer new exciting opportunities for education, amenity and research. Hugh hopes it will continue to develop as a main centre for University teaching and research in ecology and conservation. In the Garden itself, the current strategy includes "the landscape beyond the wall along Rose Lane, a medicinal garden and, in time a significant development at the Magdalen Bridge corner of the Garden". He was disappointed that plans ten years ago for a new building came to nothing, but the Charlotte Building has been a great success. There is now an opportunity to look afresh at this remarkable and sensitive site.

Hugh retires as Sherardian Professor and Keeper at the end of this academic year, but before then he hopes to expand the Garden's academic relationship with the Department of Plant Sciences. "There has never been a time at which the expertise and facilities available in the Garden and Plant Sciences have been so important, and bringing them together will impact on how we develop the new plants necessary for all our futures".

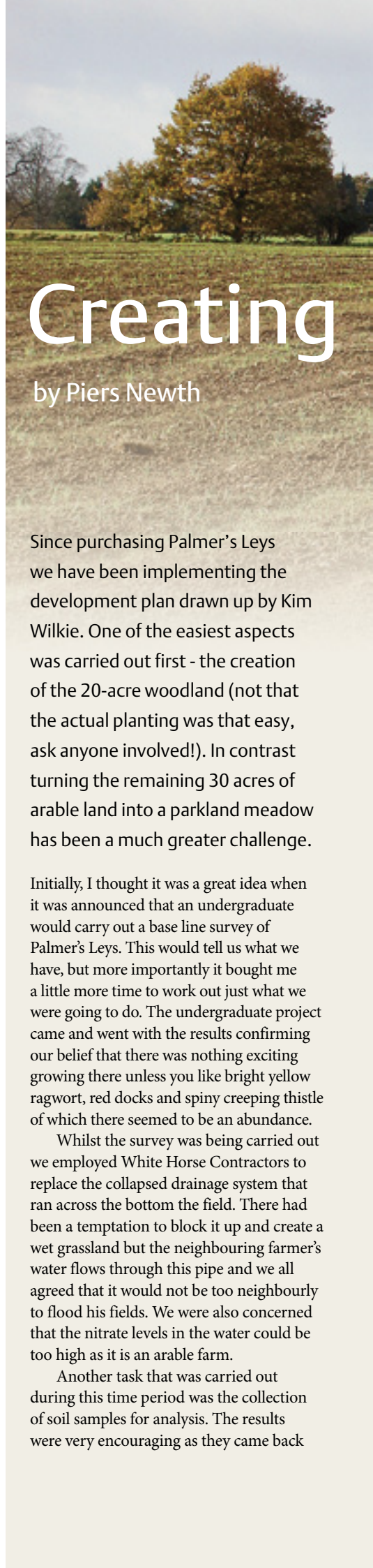
He is also Garden Master at Magdalen. "My predecessors had always supported the Head Gardener but in recent years had not had to be particularly innovative. However, when I arrived it was the beginning of a succession of major college developments. The painful experience of the problems following the restoration and re-landscaping of Holywell Mill showed the need to ensure that garden planning and landscaping are an integral part of the college planning processes. I think we have gradually achieved this by working with the College planners along three main themes: managing the landscape around new and renovated buildings, restoration of the historic landscape and innovative new projects". Two further ambitions are the restoration of the 'Water Walks' towards the original design so admired by Joseph Addison, and the renovation, in collaboration with the Botanic Garden, of the Lasker Rose Garden between the High Street and the College Buildings fronting the Botanic Garden.

Finally I asked Hugh about his own garden: "It is far from a grand garden but a former orchard that is easy to maintain with lawn, trees, and a small Italian-style garden (built by Hugh) close to the house. He is currently reconstructing a pond and has incorporated an old tennis court into the garden.

Throughout his 17 years as Keeper Hugh feels he has helped by "acting sometimes as a figurehead and other times as a conduit between the University, Plant Sciences, Magdalen College and, in the early days, with the University's museum directors". It originally took up a good deal of his time 'alongside the day job' and he greatly welcomed a University review in 2001 that led to Timothy deservedly taking on full management responsibilities with the Keeper's role becoming more advisory and more manageable. He believes the "Friends have provided a tremendous support".

By the end of our discussion, I understood for the first time the role Hugh Dickinson has played in the transformation of a beautiful historic garden into a university botanic garden with a clear idea of its special role in Oxford University, the local community and within plant science and conservation. He hopes that his successor, Liam Dolan, will continue to play an active role in advising on strategy, and linking the Garden with Plant Sciences and Magdalen College.

Richard Mayou is Chairman of the Friends



Creating

by Piers Newth

Since purchasing Palmer's Leys we have been implementing the development plan drawn up by Kim Wilkie. One of the easiest aspects was carried out first - the creation of the 20-acre woodland (not that the actual planting was that easy, ask anyone involved!). In contrast turning the remaining 30 acres of arable land into a parkland meadow has been a much greater challenge.

Initially, I thought it was a great idea when it was announced that an undergraduate would carry out a base line survey of Palmer's Leys. This would tell us what we have, but more importantly it bought me a little more time to work out just what we were going to do. The undergraduate project came and went with the results confirming our belief that there was nothing exciting growing there unless you like bright yellow ragwort, red docks and spiny creeping thistle of which there seemed to be an abundance.

Whilst the survey was being carried out we employed White Horse Contractors to replace the collapsed drainage system that ran across the bottom the field. There had been a temptation to block it up and create a wet grassland but the neighbouring farmer's water flows through this pipe and we all agreed that it would not be too neighbourly to flood his fields. We were also concerned that the nitrate levels in the water could be too high as it is an arable farm.

Another task that was carried out during this time period was the collection of soil samples for analysis. The results were very encouraging as they came back



the Palmer's Leys Meadow

from the laboratory saying low, slightly low or very low for phosphorus, potassium and magnesium depending on the location within the site. We also discovered that the pH was slightly acidic with some variation across the site.

The big question remained however and that was which of the many methods available should we adopt in order to create our new parkland meadow. One approach was to graze the land with sheep as they will nibble young ragwort shoots thus enabling us to introduce wildflower seed by over sowing it. Another was to carry out deep inversion ploughing; this is where the topsoil is buried under the subsoil by a very deep plough. However, as gardeners the quality of topsoil is drummed in to us at college quite early on and I have to admit I really struggled with this concept. What if it didn't work? Can it be ploughed back to the top? Then there is the problem of drainage, it would be below the plough and rendered useless. One idea that I did warm to was spraying off the area before ploughing it up, and then strewing hay collected from our existing meadow before bringing livestock in to tread the seed in to the soil. A farmer even agreed that a modified combine harvester could collect seed for us to sow on to a seedbed (unfortunately he wasn't quite so sure about modifying his combine harvester).

Despite the range of options available there was only one individual and was referred to over and over again - Charles Flower of Flower Farms in Wiltshire. Everyone agreed that he was the person to consult. The question was would he want to work with us? I gave him a call and he agreed to come and look at Palmer's Leys. His visit was the best working day that I had experienced in ages and I am delighted to announce that he will be working with

Establishing a Wildflower Meadow Course

Tuesday 16th June 2009

Join Charles Flowers from Flowers Farms for this day course looking at the process of establishing a wildflower meadow. The day will include an illustrated talk and an outdoor session looking at Palmer's Leys, the meadow that we are currently working on with Charles. Topics covered during the day will include buying or collecting seed, propagating, the effect of soil type and pH, seedbed preparation, sowing and managing. *This course will take place from 10.00am to 4.00pm at the Harcourt Arboretum. Tickets cost £50.00 per class (includes sandwich lunch). Please call 01865 286690 to book a place*

us throughout the development of the parkland meadow.

Work actually began in late spring when the first ten acres was sprayed off. We have started at the bottom of Palmer's Leys and we are working our way up hill, the reason is that that is where the prevailing wind comes from so any weed seed will hopefully blow away from the newly sown area. The size of the area was arrived at by working out how much seed we could harvest from our existing meadow and also how much could be dried and cleaned on the floor of the Tractor Shed.

Once the area had been sprayed off we ploughed it, then it was left for a while before a power harrow was taken over the surface to create a seedbed. In the mean time Charles' colleagues arrived on the only dry day for weeks with a machine that was once used to collect golf balls but now sweeps seed instead (something good has come out of golf after all). It actually worked, much to my amazement, very well. The seed was tipped from the hopper on to large plastic sheets in the Tractor Shed to a thickness of about 6cms, the seed was then turned twice a day for a couple of weeks to dry it and allow the grass hoppers to escape! After drying the seed it was sieved through a large mesh to remove as much stalk material as possible before being stored in large boxes. We complemented our meadow seed with extra seeds of bird's foot trefoil, common sorrel, cowslip, field scabious,

lady's bedstraw, lesser knapweed, oxeye daisy, ragged robin, ribwort plantain, self heal, tufted vetch, yarrow and yellow rattle.

When the 10 acres finally dried out in September our meadow seed was sown. Unfortunately no manufacturer produces a machine that is able to cope with such a coarse seed mixture so we resorted to borrowing a rather old vicon fertilizer spreader. It consists of a large conical hopper that allows seed to drop into a spout that moves from side to side very quickly flicking the seed out. This machine is fantastic for fertilizer but seed that has not been cleaned meticulously is another matter, it soon became clear that the chaff and small bits of stalk were blocking the holes in the machine and preventing the seed dropping through. The only answer seemed to be to have Tim, our senior arborist, running alongside the machine with a stick agitating the seed. Tim must have run a fair distance that day up and down the 10 acres in two directions. It is a testament to his fitness and stamina that we completed the job in a day (thanks Tim). If there were any neighbouring farmers looking on at this time they must have been doubled over with laughter at this crazy pair mucking about on a mere ten acres. We just hope that it has worked. I guess that only time will tell but what I can promise you is that we will share our experiences with you.

Piers Newth is Curator of the University of Oxford Harcourt Arboretum