



WEALD &
DOWNLAND

OPEN AIR
MUSEUM

MAGAZINE

Vol. 8 No. 17 March 1997

**Sowing The Seeds –
The Museum's
Historic Gardens**

**A True Cottage –
New Research On The
Latest Building Exhibit**

Education Service Wins Award

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Opening Arrangements 1997-1998

March 1st - October 31st
10.30am - 6pm Daily

November 1st - February 28th
Wednesdays, Saturdays and Sundays
10.30am - 4pm

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The Museum is a non-profit making company limited by guarantee and registered as a charity. Its work has depended on the support of many individuals and trusts. If you are not already involved in its development and would like to be, please contact the Museum Director.

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Milestone year for the Museum as it celebrates 30 years

1997 promises to be an exciting and exceptionally busy year for the museum, launched 30 years ago. 1967 was a crucial year for the establishment of the museum by our founder, Dr Roy Armstrong, who wanted to rescue important examples of historic vernacular buildings, which were disappearing rapidly as a result of housing and road schemes. It was the year when Edward James offered to site the museum at West Dean, and a bank account was opened with the sum of £11,175 2d. The first promotional leaflet was published and the first national press report appeared, in the Daily Telegraph.

Roy Armstrong's dream developed into an award-winning museum which appealed to all ages and became one of the most popular attractions in the south east, with some 150,000 visitors a year. Even more importantly, it developed into an institution with a sound research base and has contributed significantly to our understanding of vernacular buildings.

Thirty years on our objectives remain firm with perhaps an even greater commitment to encouraging the rural skills so important to the original occupants of our buildings and which still have a relevance today with our increasing concern for the environment in which we live.

We start the year with an enormous boost - our success in winning a Sandford Award for our educational work. Our education programme has moved forward in leaps and bounds in the last year - with a wide choice of specialist workshops available for schools focusing on subjects relevant to the national curriculum, and an extensive annual adult education programme.

This year we will be completing the building work and interior of Whittaker's Cottages, and look forward to the collaborative project with Bournemouth University to interpret the effects of the environment on the building and the Lavant Education Centre - *Buildings Alive!* We shall also be putting the finishing

touches to some of our other projects which have been awaiting funding - the Reigate House, the Horsham Shop and Winkhurst.

Much time and effort last year was spent in developing our two Lottery projects, and we shall await the outcome with interest. With this important additional financial help we hope to re-erect an important 16th century building and embark on a new building conservation centre.

Special events will take up our time too, attracting new visitors and encouraging old friends to return. A new event this year is on 20/21 September when the *Out of the Wood Show* will explore the use of timber. In summer we celebrate the fact that the museum is opposite a historic cricket-ground - the site of the first ever women's cricket game - with an exhibition, *Cheerleaders to Champions!* and a special day featuring traditional women's sports.

We welcome three new members of staff, working in the curatorial, visitor services and finance areas, and as always at the beginning of the season, look forward to the return of our small army of volunteers. Special thanks are due to all those who have beavered away at the museum during the winter months - the busiest winter we have ever had.

Funding remains the only obstacle to achieving our dreams of the next 30 years. As an independent charitable trust museum, we continue to struggle financially, along with all our colleagues in the sector. In an economic environment in which paying for culture comes low down on the list, we have to find our own way through the mire. But in this, of course, we have 30 years' experience, and with the help of our supporters everywhere, remain determined and hopeful for a future to match our successful past.

Christopher Zeuner
Museum Director

Buildings alive!

Buildings are "alive", constantly changing in response to changes in the environment. Sunshine, wind speed, light levels, noisy schoolchildren and heavily breathing visitors all affect our buildings.

Now in a new project we shall be able to find out more about how a building behaves as it puts up with all these stresses! Whittaker's Cottages and

the Lavant Education Centre will be "wired up" to monitor the effects and visitors will be able to take part in the project.

The two buildings provide an excellent comparison - between light, uninsulated construction (Whittaker's Cottages) and heavy, well insulated construction (the Education Centre). The two buildings will contain monitors measuring such things as temperature and humidity inside and outside, rainfall, numbers of visitors in the buildings, light and noise levels and structural movement. The data will be relayed to a computer where it can be seen and

Museum receives Sandford Award for educational excellence

The museum received a welcome boost at the end of last season when the Heritage Education Trust granted us a full Sandford Award - one of the most coveted awards in museums, given annually for excellence in heritage education.

The museum's broad range of education opportunities was much praised by the judges. "Children have numerous opportunities for hands-on practical work and experience, such as brick-making, life in a medieval house, being a Victorian schoolchild, milling corn. The setting is superb and children will have a very enjoyable as well as a truly educational visit."

The judges were also impressed by the museum's extensive adult education programme, including its teaching of timber frame conservation and repair modules for Bournemouth University's MSc course in building conservation and the lectures and courses designed for both professionals and interested individuals.

Museum interpretation officer Sue Shave, who is responsible for the museum's educational programmes for children, explained that the judges

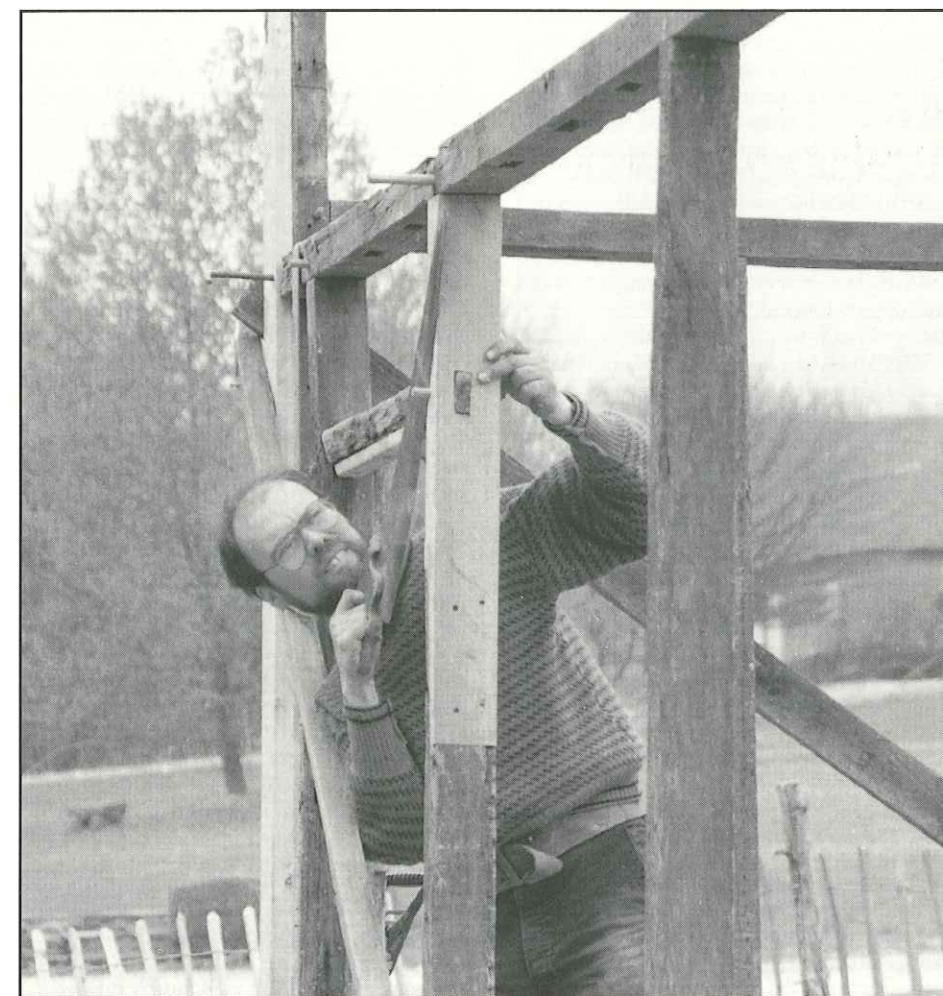
visited on a busy hot day in June. Her team of education volunteers were hard at work - Jon Roberts was assisting Sue with a talk and demonstration on brick-making; Brian Weekes and Ann Pollock were running the *Getting to Grips* hands-on exhibition; Singleton School came for a Victorian afternoon, with Jean Piggott running a food and cooking session and Valerie Singer taking a Victorian lesson in the West Wittering School. The quality and dedication of the volunteer teaching was remarked upon by the judges.

Sue Shave, who will collect the award at a ceremony this month, said its achievement was a reflection of the professionalism and dedication of everyone involved in education work at the museum.

Education has always been at the heart of our objectives at the Weald and Downland Museum, following the lead of the museum's founder, Dr Roy Armstrong. While many museums are being urged to take greater interest in education, it is satisfying to know that countless children - as well as adults - have benefited from our educational programmes over the years.

Whittaker's Cottages

This year will see the completion of the Whittaker's Cottages project. The photograph shows the early stages in the re-erection of the timber frame - Paul Price saws off an over-hanging peg. On page 24 Richard Harris describes some of the research the museum has been carrying out on the building.



analysed by visitors.

The computer will display graphs over various time scales, estimating such things as the rate of heat flow through walls, gain and loss of water vapour, effect of sound and response of the buildings to wind loads. The information will be compared between the two buildings.

The project is a collaborative one with Bournemouth University and has attracted a grant of £10,000 from the Carnegie UK Trust, one of the first grants it has given under its new programme to assist information technology projects in independent museums.

Attracting European funding

The museum's joint project for the environmentally-friendly eradication of pests from Whittaker's Cottages last summer has qualified for European Union support under its Raphael Programme designed to safeguard and enhance awareness of the European cultural heritage.

The museum and its European partners, Thermo Lignum UK, Thermo Lignum Maschinen-Vertriebs in Germany and FTD-Entwicklungs-und Service in Austria, received 20,698 Ecu (approximately £15,108) between them. The cottages were encased in foil and hot air and moisture injected into the building to 52c, the level at which pests and eggs are destroyed. This was the first time this pioneering treatment had been carried out on a whole building.

Now the museum is taking part in another initiative which has European funding under the European Training Foundation's Tempus programme. In partnership with the Chichester Institute of Higher Education we shall be offering opportunities for 19 students and staff from the University of Cluj Napoca in Romania and an open air museum in the same city to study leisure and tourism management. Some aspects of the course will be run at the museum.

Virginia Lyon

Virginia Lyon, one of the museum's longest-serving and most active volunteers, died in December after a short illness.

For over 20 years Virginia had been a stalwart member of the museum's community, deeply involved in all aspects of the museum's operation and putting in countless voluntary hours. She was chairman of the Friends of the Museum, a trustee, a member of the management board, secretary of the rare breeds show, a regular volunteer and a guide. Whenever there was a special occasion, or a particular need, or even on ordinary open days, Virginia was there to assist.

Her strong and able chairmanship of the Friends consolidated its position not only as a vital force in the museum's organisation and funding, but as one of the largest and most effective museum friends organisations. For six years she was secretary of the rare and traditional breeds show, which has become the largest show of its kind in the south of England. Virginia devoted herself to the efficient organisation of this complicated event, as well as contributing her skills to many other special events run by the museum.

Virginia had many interests, but the most dear to her was the museum. She started visiting in the early days, taking children from Great Ballard School on outings, encouraging them to appreciate aspects of English history relating to the few buildings that had been re-erected on the site by the early 1970's. Her subjects were English and History and thus this teaching fitted in well with her interests and spurred her to become involved with this new museum so recently planted on a piece of West Sussex parkland.

Virginia was possessed of much energy, imagination and perseverance, and she gradually became more involved at the museum. After her retirement from teaching she was able to give much of her time to museum affairs and in particular was an ardent supporter of the Friends organisation. Her other great contribution was assuming responsibility for the rare breeds show, one of the major events of the year. Virginia created an intricate system of communication, contacts and expertise to assimilate and cope with the

Lady Caine

We are sad to report the death of Lady Caine, a keen and valued supporter of the museum for many years. As a steward she greatly enjoyed her visits to the museum and talking to visitors with



Virginia Lyon presenting the cup to the downs breed champion at last year's rare breeds show.

multitude of details needed to present a successful show.

Virginia had wide interests and led a busy and out-going life. Apart from her teaching and involvement with the museum, she was an ornithologist of great skill, being able to identify birds by flight call and habitat, even if not clearly seen. She worked tirelessly for the NSPCC, the National Trust, Snowdrop Trust and Slindon church and village.

She enjoyed cooking, gardening, sewing and embroidery. She was widely travelled, using holidays abroad to seek beyond the tourist trails and discover something of the lives of people in the country she was visiting.

Those who were Virginia's friends were fortunate, as once accepted and counted as such, her friendship was lasting and sincere. She had a deep Christian faith which was the foundation of her life, but equally was open-minded in her thinking and prepared to explore other philosophies and "ways to God."

She died in peace and tranquility. She will be missed by very many people: by her family and friends of course, but also by all at the museum and the many other organisations with which she was involved. She will live on in our hearts as a true and loving friend.

Tim Heymann

whom she was able to share thoughts and ideas about the buildings and their history. The family have kindly accepted donations to the museum in lieu of flowers. She will be very much missed.

New to the team

This year three new members of staff join the team at the museum following a review of some aspects of our operation.

The two posts of warden are being re-designated as visitor services managers to reflect more appropriately their duties and responsibilities. The day-to-day operation of museum opening will remain the same, but one will be responsible for running our volunteers' rota and training and the other will be responsible for the retail aspects. The former post will be taken on by Keith Bickmore, our current warden, who will therefore continue to be the main point of contact for our stewards group. Carolyn Darling has been appointed as visitor services manager (retail). The relief wardens will continue as before.

The book-keeping post has been replaced by a finance officer who will take on the ever increasing workload needed to run the museum. Up to date information on financial matters is essential to the success of the museum and the new postholder, Charles Hinde, will play an important role in achieving this.

The post of curator was advertised at the beginning of the year and Julie Massey has been appointed, to start in early spring.

Staff goodbyes

Just before Christmas we said goodbye to two members of the museum's staff.

Gill Clifton has for the last seven years looked after the museum's book-keeping arrangements. She has taken a new post with a local firm of solicitors. Bob Powell, the museum curator, has departed to work for the Highland Folk Museum in Kingussie.

Both have made valuable contributions to the museum and we wish them well for the future.

Alick Deadman and John Verrier

No Autumn Countryside Celebration will seem the same without the horse plough team of John Verrier and Alick Deadman, but this winter they died within a few months of each other.

Since the early days of our horse ploughing and steam threshing weekend, John and his Shire horses with Alick as ploughman, have travelled from their Hampshire villages to take part in this most popular of museum events. Both looked forward to the occasion, enjoying its non-competitive nature and friendly atmosphere, contributing to it greatly themselves.

News in brief

□ Last year was a particularly good year for media coverage of museum activities. In addition to many articles in local and regional media, features appeared in The Guardian, The Daily Telegraph and The Times. The Thermo Lignum pest eradication project gave us good exposure on television, both BBC and ITV, and the visit of the Prince of Wales was well covered on regional television. We also succeeded in featuring in a number of specialist magazines such as *Traditional Woodworker*.

□ Alison Bunning, museum volunteer and qualified architect, at work drawing plans of Tichfield Market Hall ready for sale to model makers. Her plans of a Sussex tip cart, based on a good example in the museum collection, will be available to model makers later this year. More plans are in the pipeline.



□ In December the museum was chosen as the venue for a sound recording of songs and tales of Sussex by the much-loved and respected Copper Family, accompanied by the story telling of broadcaster Martin Muncaster and introduced by Patrick Garland, former artistic director of Chichester Festival Theatre. In the appropriate surroundings of Crawley Hall, Sussex songs were sung and old tales told in the soft and often unintentionally amusing Sussex dialect. As well as being superb entertainment there was a serious side to the recording, to preserve for future generations genuine Sussex voices and songs. The cassette tape will be available from the museum shop later this year.

□ Since 1993 the astonishing amount of £12,735 has been raised through the offer of horseshoes at the museum shop! The Conservation Group (formerly the Tuesday Gang) are responsible for cleaning and polishing the old shoes with the aid of a cement mixer and a wirewheel. Visitors can donate 70p to take one away with them as a souvenir of their visit. None of this would be possible, of course, without the availability of the shoes themselves, and for this we are grateful to our farrier, Dave Froggatt, who has a forge at West Dean and regularly shoes our working horses.

Museum makes two bids for lottery funding

□ *Building conservation centre, housed in a greenwood timber structure*

□ *Poplars Cottage, a 16th century smoke-bay house*

The museum currently has two projects before the Heritage Lottery Fund which we hope will bear fruit during 1997.

The first is an application for lottery funding for a £1.2 million open access building conservation centre and collections store to be housed in an innovative greenwood timber structure and sited uphill from Longport House.

The centre will be used for the study, practice and interpretation of building conservation, especially the English timber-framing tradition, for which our museum has a national reputation. Visitors will be able to watch historic timber-frames being restored ready to join the other building exhibits on site.

They will also be able to see close-up the many interesting artefacts in our rural life and building parts collection established over 30 years, but which cannot be on display all the time - from the complete interior of a walking stick factory to a fine 19th century Sussex waggon - and our research collection of building parts and trades. This collection is currently stored off-site at nearby Charlton.

The building itself is an integral part of the project, and will be constructed with forest thinnings on walls of chalk and flint, and roofed with timber shingles and turf. Through this structure, the museum wants to show how sustainable natural materials can be used in modern buildings in the countryside.

The museum chose leading British architects with experience in such construction - Edward Cullinan Architects, who brought in Buro Happold Engineers. Together they have previously worked on buildings at Hooke Park for furniture designer and manufacturer, John Makepeace. Quantity surveyors to the project are London and Bognor Regis-based Alex Sayer Ltd. The initial development work was made possible by a grant from the Friends of the Museum.

The second project is for the repair, re-erection and interpretation of the 16th century smoke bay house, Poplars Cottage, which is to be a memorial to our founder, Dr Roy Armstrong. Donated by Harry Goring from the Wiston Estate, Steyning, it represents an important part of the jigsaw in telling the story of vernacular architecture in the region.

As a smoke bay house it will enable the museum to show the transitional type between the medieval open hall,

such as Bayleaf, and houses with brick chimneys, such as Pendean. A short bay at one end contained the open fire, the rest of the house having an upper floor. The intention is to compare the building with Bayleaf through interpretation.

Greenwood structure to mushroom in Paris!

There is an interesting spin-off from the museum's greenwood timber building conservation centre project. Edward Cullinan Architects and Buro Happold Engineers have been invited to design and build a temporary grid shell porch out of greenwood timber for the entrance to the Pompidou Centre in Paris as part of a major exhibition *Les Ingénieurs de Siècle*, which is to represent the achievement of engineers throughout the world.

The curator at the centre knew of their work at Hooke Park and their collaboration with European architects on greenwood structures and wanted to present it in some form at the exhibition. The new work on the museum's project provided a good basis for the Pompidou Centre structure and the museum director has assisted in the evolution of the proposal. Working with Andrew Holloway of the Green Oak Carpentry Company the museum will also be involved in the building of the structure in Paris.

The museum has already raised a significant proportion of the matching funding, vital to any lottery project.

The amount of work involved in preparing a lottery application cannot be underestimated. After the bid is submitted various assessments take place and a great deal of contact with the Heritage Lottery Fund occurs. Such is the pressure on the HLF that the decision deadline for projects is sometimes put back. We hope therefore to be able to announce successful results of both these projects in the future.

New services for schools in great demand

Volunteers help plan curriculum-based studies

Bayleaf workshops book rapidly

The museum's education service has developed fast over the last few months. Small specialist teams of education volunteers have been set up to help our interpretation officer plan and run new quality services to schools.

For the first time the museum has offered a series of winter workshops

aimed at individual schools working in depth on specific buildings and topics relevant to the curriculum.

Our new education centre in the Lavant building has made it possible to house indoor activities and allowed us to extend special opportunities to schools during the

winter months when we are open on a more limited basis.

Two subjects most frequently requested by teachers are "the Tudors" and "building materials", so a small team of volunteers has worked with Sue Shave to plan two-hour workshops for key stage two children on these subjects.

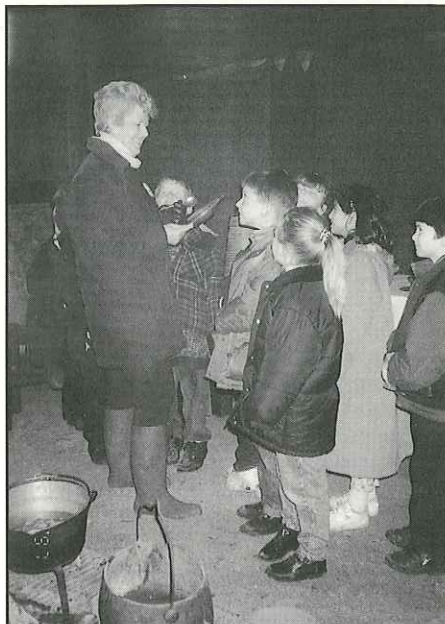
All year round . . .

Loans boxes for schools

Sue Shave and Jon Roberts developed loans boxes on traditional building materials for schools which were instantly booked by schools studying that topic.

The boxes contain building materials, tools, illustrations from medieval and modern sources and an information booklet written by Jon explaining the sources, preparation and production of common building materials used in the past.

Boxes can be ordered from the museum office at £10 per half term.



Artefact handling workshops

These are available to schools covering a variety of subjects, such as carpentry and converting trees into timber; farming equipment; blacksmithing in the past and talks on a range of traditional and modern building materials. Talks are accompanied by demonstrations and participation activities with the children, including handling items from the museum stores.

The talks can be adapted for most ages, but the building materials talk is very suitable for key stage one children, who are too young to benefit from the *Getting to Grips* hands-on exhibition. The sessions are run by a small team - interpretation officer, Sue Shave, Jon Roberts and Peter Hawes. Many schools have taken advantage of this new service, making it almost as popular as the hands-on exhibition.

Mary Burnie talks to a school group about food and eating in medieval times

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New winter programme . . .



Sue Shave helping children learn spinning at Bayleaf Farmhouse

Bayleaf workshops

Anyone who has worked in Bayleaf knows the problems that stewards experience when 500 children try to visit the house at once! Bayleaf is a wonderful resource, with many aspects of rural life which often get missed during ordinary school visits. So we decided to offer the opportunity of booking Bayleaf for two hours to one school per day during our closed season.

The sessions include a full tour of the house led by the Bayleaf stewards, a visit to the garden to explore food provision for the household, and looking at the farmyard and Cowfold Barn to discover how a Tudor farmer grew and harvested his food. Some hands-on activities were offered too - spinning, pewter cleaning, candle dipping and soap making, as well as making a daily potage with vegetables from the Bayleaf garden.

The workshops were marketed to schools in West Sussex and Surrey and the response was incredible. The sessions booked rapidly and many Surrey schools which had never visited before are considering returning in the summer to look at other buildings. Teachers

reported how much the children had enjoyed the day, especially the hands-on activities.

This new venture enables the museum to provide a service to schools that no other organisation in the region can offer. It has enabled us to provide in-depth educational experiences to a wider range of schools than before. Extra school parties and shop revenue are also benefiting the museum itself.

The people who are responsible for enabling us to offer the service are of course the volunteers, who work extremely hard, often in cold conditions. Jon Roberts and Brian Weekes, have helped, not only with the planning stages, but came in to the museum for every workshop to assist with the practical work of setting up and clearing away each day. Many Bayleaf stewards in particular, gave up their time to come in each week to help run the project - Lyn Whitaker, Jean Constable, Godfrey Shirt, Leo van Ewick, Carla Burley, Dan Gaffney, Mike Giles, John Goodfellow, Heather Clover, Mary Burnie, John Eyre, Chris Humphrey and Alwyn Johnson.

Building materials workshop

This develops the concepts begun in the *Getting to Grips* hands-on exhibition, looking at the properties of building materials. A small team, with connections with the building trade, designed and ran an interactive workshop in November in the Lavant education centre.

Activities included sorting trays of traditional and modern materials into natural and man-made categories; thermal testing, by setting up panels of materials round a fire in North Cray house with protected thermometers behind them to monitor results, and water absorption through soaking materials. Other concepts explored included density, hardness testing, rubbings of material surfaces and strength of materials.

This workshop proved popular in association with the Bayleaf Workshop. Many schools brought one year group to study Bayleaf and another to study materials. This has economic advantages - most schools could not afford a coach for just one group.

The workshop was very interactive and good fun, with many schools taking the opportunity of follow-ups back at school. Peter Hawes, Jon Roberts and Alison Bunning helped plan the workshop and Reg Knight, Mike Piggott and Chris Humphrey assisted in running it. Richard Murdoch helped with one large school by providing a super session on the properties of metals involving demonstrations and lead casting activities.

JOHN FORD

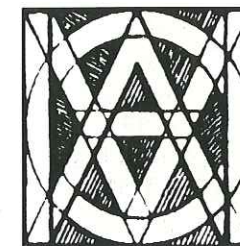
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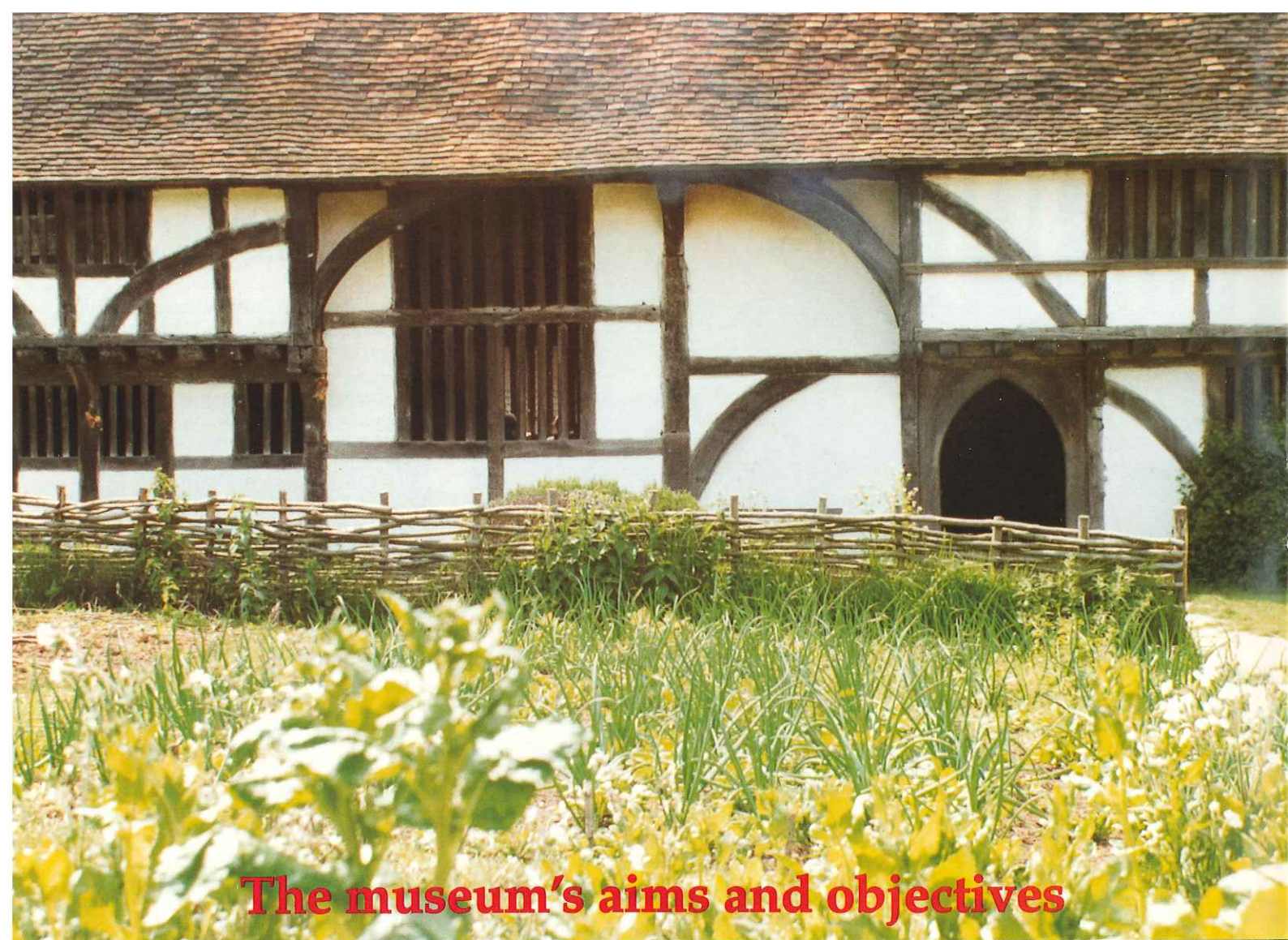
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The museum's aims and objectives

□ To encourage people to understand and care for the traditional buildings of all periods in our region through our re-erected building exhibits. Our ancillary collections support the buildings by illustrating traditional agriculture, domestic life, trade and industry and transport.

□ To deepen our own understanding of our collections and to communicate

this to as a wide a public as possible through educational and recreational activities.

□ To foster an interest in and care for the rural environment and encourage the development of countryside skills.

□ To provide a high quality of experience and good value for money for all our visitors.

□ To give suitable and useful responses to technical enquiries from the general public.

□ To foster links with organisations and individuals working in parallel fields.

This statement is a synthesis from the museum's forward plan, which is available for anyone interested at the museum office.

DOVETAIL

This Shakespearian quotation is both an apt description of the museum's 1997 **DOVETAIL** programme and a clue to at least one of the events planned! *Illyria* - the popular and highly professional open-air theatre group is to return, with its rumbustious open air versions of *The Tempest* and *Richard III* in August, the 12th and 19th.

Earlier in the season there are four evenings which will assuredly "give delight and hurt not." **The Copper Family** returns on 11 June to North Cray house with more Sussex tales and songs, accompanied by Martin Muncaster.

"Sounds and sweet airs, that give delight and hurt not..."

A week later on 19 June, **Popeluc**, the Romanian/English folk trio, comprising Pete Castle, Lucy Castle-Hotea and "Popica" in traditional Romanian dress, will offer a lively and unusual evening of music by candlelight.

These are return visits, but new to the museum on 28 June is **Artisan**, a three-part harmony group of international repute, described variously as urgent, uninhibited, joyful, vigorous and fiery.

A family evening and open air "barn" dance is becoming a popular feature of the museum's contribution to the Chichester Festivities and takes

place on 11 July. Music will be provided by the Original Elastic Band with caller, Di Hodgson. Bring a picnic, supplement it with food from the barbecue and some Ballards beer and enjoy yourself under the stars in the market square.

Last year's **DOVETAIL** programme was an enormous success, and heavily booked. Don't delay in finding out more about this year's programme - telephone Carol Hawkins at the museum office.

□ Overnight accommodation is needed for *Popeluc* and *Artisan*. Can anyone help as a gesture of goodwill to the museum.

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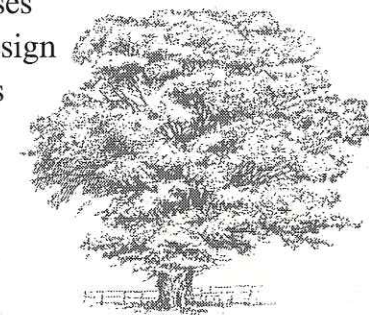
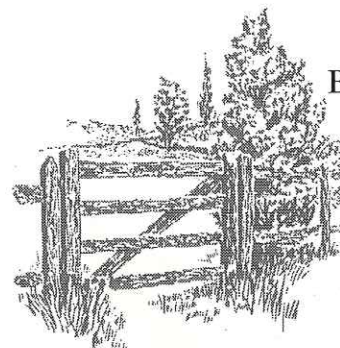
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Minerals



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Sowing the seeds . . .

Above, Solitude among the vegetables for a visiting schoolgirl.



Below, Thelma Jack and Jill Dickens contemplate the next task at Bayleaf.

Bob Holman describes the work in the museum gardens

"What on earth did they use marigolds for?" asked the enquiring voice, "and surely they didn't eat that weed?" pointing to the bristly ox tongue. Jill and Thelma then spent 10 minutes answering more questions and showing the visitor around the rest of Bayleaf Farmstead, collecting other visitors along the way eager to hear the medieval garden interpreted for them.

This is a normal Monday for the museum's garden staff - Bob Holman, Thelma Jack and Jill Dickens - who are responsible for the development and maintenance of the gardens around the building exhibits at the museum. Their brief extends to the hedges and wattle fences around the gardens and the orchard. Maintenance work on the hedges, fruit tree pruning and hedge laying are carried out during the winter.

The gardens, particularly the medieval re-creation at Bayleaf, have created an enormous amount of interest, so much so that last autumn we established a small group of interested volunteers to interpret the gardens during the days when the gardeners were absent. Lyn Whittaker, Heather Clover and Leo van Ewick also have an important role to play in their interpretation of the farmstead for educational groups.

Many people ask us where we get our seeds from and whether it's difficult to grow plants such as skirrets, alexanders and orache. We keep quite a lot of our own seed as people of the late 15th century would have done. Thomas Tusser in his 500 Points of Good Husbandry written in 1573 says: "Good huswives in

sommer will save their owne seeds against the next yeere as occasion needes. One seede for another to make an exchange with fellowlie neighbourhood seemeth not strange."

The pot marigold seed is scattered in the autumn as is the white campion, or catchfly, as it is also called. This is the plant that protects our broad and tick beans against blackfly attack by attracting the pest to itself, thereby keeping the beans free. The stems of catchfly are hairy and sticky and the blackfly get ensnared and become easy prey for the ladybirds and their larva and the other predatory insects we have. Other seeds are obtained from the Henry Doubleday Research Association of which the museum is a member, and some come from specialist nurseries or seedsmen.

Growing skirrets, which are like a multi-rooted parsnip has been learnt by trial and error and some help from Gerards Herbal and Thomas Tusser. They have up to 15 finger-size roots that are harvested in winter, the crown and small roots planted again to harvest the following year. They have a lovely nutty flavour but are rather chewy.



The ability to grow plants for culinary and medicinal purposes was vital in the self-sufficient time in which many of our historic buildings were constructed. The gardens we have created alongside some of the houses play an important role in helping interpret

the buildings and the way of life led by its original occupants. Visitors' interest in the historic gardens is huge, and while we continue to maintain and develop those already in operation, the museum plans to create more gardens in appropriate settings on the site in the future.



Above, Jill Dickens tackling the weeding, making use of the replica medieval wheelbarrow . . . and arranging hazel twigs to act as bird scarers.

Below, Bob Holman discusses the plants in Bayleaf medieval garden with Sue Shave, interpretation officer.



Alexanders, or poor man's celery, as it became known after the introduction of celery in about 1790 was both a vegetable and a medicinal herb. It seeds itself readily and could be transplanted quite well, but does not like late frosts, so has to be protected in the spring when it starts to grow rapidly. We usually put straw around the plants which has caused some visitors to ask why we are growing strawberries there!

The herbs have an important role at Bayleaf. They illustrate to our visitors the importance of herbs at that time, i.e. medicinal, culinary and spiritual uses. St John's wort or wormwood kept evil at bay and borage was the herb of gladness. Children love to rub their hands in the herbs and try and guess what their uses were. The herbs are regularly cut and hung to dry in the buttery inside the house, along with onion and garlic strings and alexander seeds that had important uses for women during childbirth. This winter we made a gateway from Bayleaf through to the orchard, to allow visitors to wander through and enjoy the apple trees and fresh views of the farmstead.

→ Sowing the Seeds

Work started on the new garden at Walderton Cottage in the autumn. Dr Sylvia Landsberg, who advised on the Bayleaf garden, has again carried out the research. The work involves creating an orchard, a vegetable plot, housing for pigs and possibly geese, as well as a small flower and herb garden around the cottage. With a date a century later than Bayleaf, the Walderton garden will include a wider range of vegetables and its role as a cooper's cottage should also add interest.

Walderton garden

receives

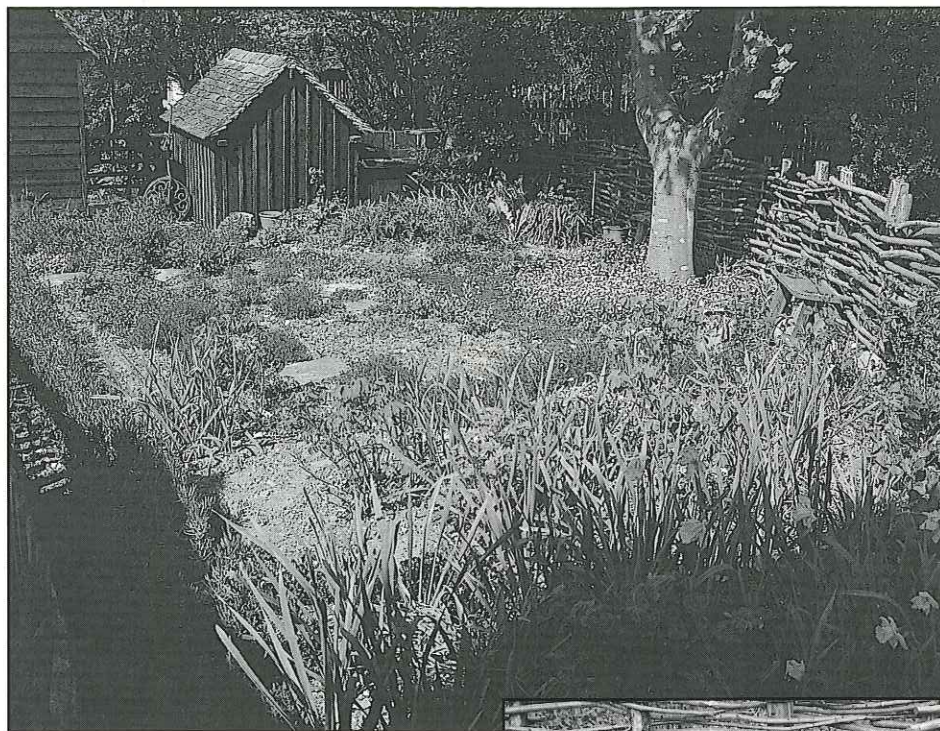
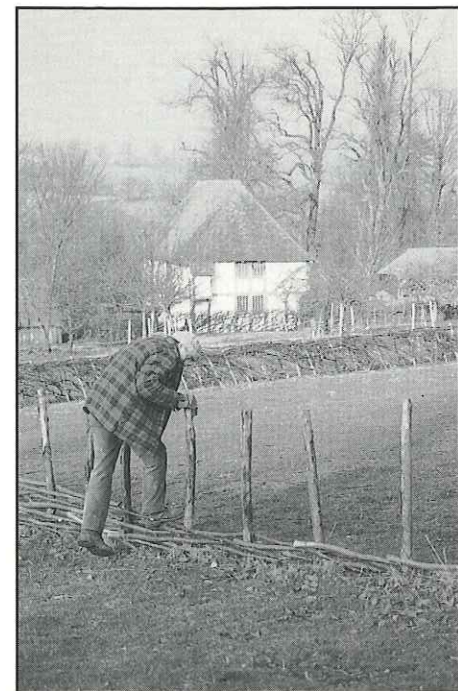
Pairing

Scheme

grant

The 17th century garden being created at Walderton Cottage has been sponsored by Enesco European Giftware Group Ltd (Lilliput Lane), which in turn is an award winner under the Pairing Scheme (the National Heritage Arts Sponsorship Scheme) for its support of the museum. The Pairing Scheme is a government scheme managed by ABSA (Association for Business Sponsorship of the Arts.)

Bob Holman hedge-laying around the Bayleaf paddocks in the winter.



Two views of the 19th century garden at the Toll Cottage.

Plants in the existing garden were lifted in the autumn, the ground elder cleaned from their roots and they were dug into our newly created nursery plot the other side of Bayleaf shaw. They will return to Walderton in the spring.

With the extra work the new garden will create we will probably need the help of one or two extra volunteers in the garden department - a number of people have already shown interest. They will be working with Jill or Thelma and myself on a Monday or Thursday. Jill and Thelma are both experienced gardeners in their own right, and have accumulated a wealth of knowledge over the past three years. You have to leave the 20th century behind when you garden at the museum, especially at Bayleaf, with its unusual vegetables, its edible weeds and 40 odd varieties of wild flowers.

This year we hope to spend more time at Hangleton Cottage in the small 14th century peasant's garden. The soil structure improved greatly last year, after large quantities of manure were incorporated into it - along with all the soil from the mole hills in the surrounding fields! It is a very simple garden, with collards, flat leaf parsley, onions and garlic grown alongside a few edible weeds such as fat hen, sow thistle and plantain, as well as herbs and welsh onions. In summer it is very attractive and when we are working up there we always receive a lot of interest from visitors.

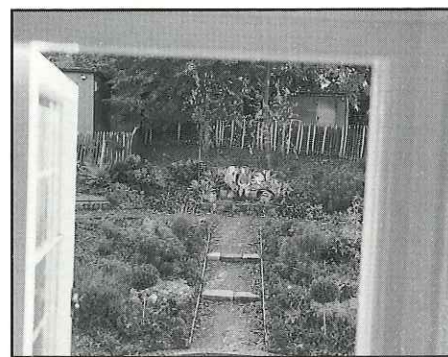
The shaws at Bayleaf received some attention in the winter. Planted some 10 years ago, they have established themselves very well in that time. A shaw is a small woodland or spinney consisting of useful trees such as hazel, blackthorn, wild cherry, field maple, as well as dog rose, planted adjacent to a



house like Bayleaf. Ruth Tittensor has just completed a report for the museum on the state of the shaws with recommendations for management in the next two years.

The Toll Cottage garden is beginning to take on a character of its own. The small herb garden with its early Victorian shrub roses, forget-me-nots and violas makes an attractive sight in spring and summer. The bay tree we moved three years ago has established itself well in the corner by the pig sty surrounded by bulbs and herbaceous plants. We had to thin out some of the branches overhanging the garden and have a few more to deal with this year to allow more light through. The herbaceous border on the west side has had many more plants added to it and is now bursting at the

Two children enjoying the Lord Bonham Carter garden by Longport House.

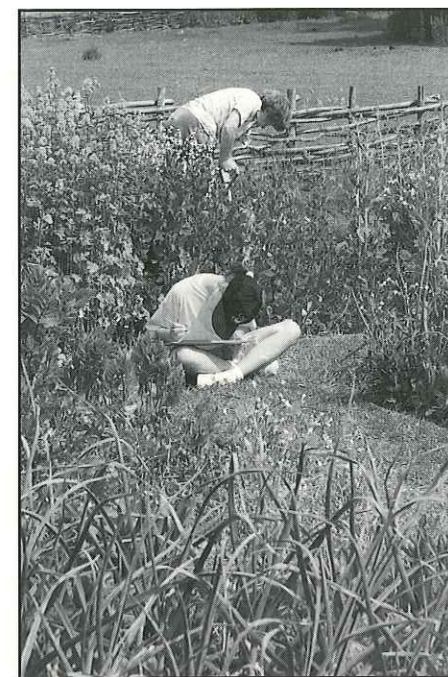


seams. More varieties of vegetables will be grown this year, owing to our further research. We have had some problems with rabbits - they ate all our cabbage seedlings last year, but now they are being kept under more regular control.

The shrubs and trees in the Lord Bonham Carter garden at Longport House have established themselves very well. More planting will be carried out this spring, with many plants donated by the Friends and volunteers.

The gardens complement the historic houses at the museum, adding another dimension of interest for our visitors. We have carried out a great deal of research of our own, especially into the uses of herbs and the most successful way of growing vegetables without fertilisers and pesticides. Other members of the staff have important roles to play. Peter Albon, our stockman, brings in lots of manure for use in the gardens, and Alan Waters, charcoal burner, supplies from the woods pea sticks, bean sticks and wattle fencing material as well as charcoal dust for the onion bed and the madonna lilies.

The gardens are taking on a more important role in the education service provided by the museum and have added



to the new work being undertaken in that area by Sue Shave. It is hoped visitors will continue to enjoy the museum gardens - we certainly get a great deal of pleasure out of caring for them.

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Bob
Holman is
leading two
walks this
year:

DAWN
CHORUS
WALK
on 18 May
and
EVENING
WALK
on 18 July.

See Diary on
back page.

THE GREEN WOOD TRUST

fosters interest in woodlands

The Green Wood Trust works to encourage the effective management of woodlands, developing products using home produced timber from its base at a restored railway station in the Ironbridge Gorge, Shropshire. As the trust's aims are so similar to an important element of our objectives the museum is exploring ways of co-operating together, especially for courses.

The trust was established as a result of Telford Development Corporation's policy of coppicing for conservation in the 1980's. The low grade small diameter timber produced from woodlands in the Gorge needed outlets and the trust was formed to develop these.

Its main aim is to encourage the regeneration of crafts which traditionally used small timber and develop products that would make a profitable use of the timber from managed woodlands. It offers a range of items of landscape furniture for sale, including picnic tables, gates, seats and signs.

An important aspect of its work is its programme of courses covering more than 40 woodland activities, including basket making, coppice management, coracle making, tool making, wood turning, hedge laying and timber-framing. The courses are taught by a variety of specialists and experts in their field. While the early courses were mainly recreational, a growing number of people seriously interested in making a living, or perhaps a part-time living, from rural crafts is now being attracted.

Further information about courses and membership can be obtained from The Green Wood Trust, Station Road, Coalbrookdale, Telford, Shropshire TF8 7DR. Tel 01952 432769.



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Chef's Sitting Room

MAIN EVENTS FOR 1997

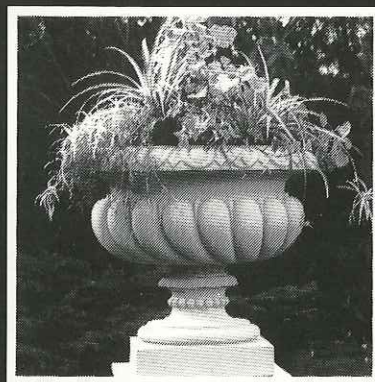
29 & 30 March - Easter Egg Hunt
18 May - Spring Plant Fair
24, 25 & 26 May - Craft Festival
27, 28 & 29 June - Open Air Concerts
6 July - Kite Festival

For our full programme of events & exhibitions, opening times & admission charges, please contact
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Repairs at the millpond

The mill race has been the subject of major repairs this winter following investigations revealing a leak, which has undermined the structure of the race itself almost completely. The side of the race has been exposed and underpinned with concrete to prevent further slippage. In addition work has been undertaken to consolidate the edges of the pond.

The pond has received a variety of visitors this winter, both welcome and unwelcome. The heron is back and it is a delight to see her standing patiently on the pond side in the early morning. Less welcome have been the flock of up to 30 cormorants. They will have reduced the fish population considerably. The cold weather caused the pond to freeze over and the cormorants departed. We hope they have found new feeding grounds.

The Pevensey Wind Pump, which once stood at the edge of clay workings at a brick yard, is in need of restoration and repair. If there are any volunteers with engineering skills who would like to undertake this project, please contact the museum director at the office.

Making the museum more accessible to disabled visitors

A range of improvements to the museum site and buildings to make them more accessible to disabled people is to be introduced this year.

The museum's countryside site with some steep gradients has always presented difficulties for disabled visitors and indeed those who generally find walking any distance problematical. Naturally we are keen not to interfere more than we need with the rural nature of the site within the South Downs an aspect which is an important part of visitors' enjoyment.

Even more intractable are the problems to be found with the building exhibits themselves. The buildings fall into two groups - those that have been modified for new use as visitor facilities, such as Crawley Hall and Longport House, and the majority of buildings which form the museum collection. These buildings must be treated with the same curatorial standards that would be applied to any museum object, whether it be a painting, a piece of furniture or an item of farm machinery. This means that

modifications to the structure cannot be made and creating easy access is therefore sometimes difficult.

However, with these constraints in mind, a review of the site has been conducted and some simple improvements identified to be put into operation as soon as possible:

❑ A facility for registered disabled visitors to leave the site via the Toll Cottage gate. Entrance from this point will not be possible.

❑ Providing a special vehicle to be used on site by arrangement. (This possibility is currently being studied)

❑ Parking for disabled visitors will be more clearly marked and information available at this point to enable people to use the site to best advantage.

❑ Small but important improvements to the site track in a number of places which will make the use of wheelchairs more comfortable.

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Romanian connections

1997 is a year in which, by coincidence, a number of activities have links with Romania.

❑ On June 16 Romanian students will spend three weeks at the museum studying tourism management as part of a joint project with the Chichester Institute for Higher Education, Babes-Bolyai University at Cluj-Napoca in Romania and the National Geographic Information Systems of Dublin.

❑ Carol Hawkins, adult education officer and Sue Shave, interpretation officer, will be off on an exchange visit with staff of the Village Museum at Bucharest.

❑ Popeluc, the Romanian/English folk music trio who performed last year will again visit the museum on 19 June.

❑ Traditional woodworker Henry Russell of Carpentry Oak and Woodland Company, who spent three months in Romania last year on a Churchill Fellowship, is to visit the museum on the same day to give a slide presentation of his experiences.

For all these reasons Carol is now learning Romanian! If anyone already speaks the language and can help she would be delighted to try some conversation!



Loading the kiln

Alan Waters, right, and Nick Conway loading the charcoal kiln in the woods above Pendean Farmhouse. The museum continues to supply B&Q with barbecue charcoal. Charcoal burning courses are being held again this month.

MA elects museum director

Museum director Chris Zeuner has been elected as institutional vice president of the Museums Association. The MA is the principal professional organisation for those working in museums, bringing together all branches of the museum world from independent museums to national museums.

In addition the museum director has been appointed by the Department of National Heritage to the review committee considering the future of the

Area Museum Council network. This has been set up by the National Heritage secretary, Virginia Bottomley, as a result of the recent Government report on museums, *Treasures in Trust*. The review will be completed in the spring.

The Museum Training Institute has invited Chris Zeuner to become a board member of the institute. This organisation is the industry lead body responsible for delivering and validating training in the museum and heritage industry.

New membership secretary

Lisa Neville joined the Friends staff in September last year and on 1 January was appointed to the newly created post of membership secretary. Lisa is responsible for all membership records and accounts.

This is the first staff appointment made by the Friends and reflects the need for computer skills and continuity in the Friends office. However, as in the past, we would welcome some clerical help from members during the summer months when the workload peaks.

If you would like to offer your services please contact Lisa or Maurice Pollock, Friends honorary treasurer at the Friends office. The hon. treasurer continues to be responsible for the overall financial control of the society.

Mike Doran steps down

When Mike Doran moved to Bepton in 1981 he was delighted to discover the museum so near to his new home. As architectural and social history had always been a hobby he quickly joined the Friends and became a steward. He remembers his first day, when he was asked to look after an exhibition of windmills in Crawley Hall. "I learnt more about windmills that morning than I had ever thought possible - hopefully just one step ahead of the visitors' questions."

In 1987 Bernard Rush found out that Mike could add up, and recruited him to help keep the Friends accounts. In 1989 he took over from Bernard as hon. treasurer. During his time in the post he has seen many changes - new charity laws, computerisation of the Friends' records, the change to direct debiting and the establishment of the Friends' own office at the museum. Mike is standing down as treasurer this year, but is not leaving the museum scene. He hopes to be around to help in other ways.

□ Valerie Singer has retired from her voluntary work at the museum. Her creation of the Victorian school lesson has been a popular activity for schools for the last few years and she will be much missed. Chrys Crinall has taken on the task of Victorian teacher, and Pat Wilkins is her apprentice!

The Friends' committee has of events for the coming year....

Saturday 5 April - Thanksgiving service for Virginia Lyon followed by the Friends annual general meeting.

Following the thanksgiving service for Virginia Lyon at Singleton Church, refreshments will be served in a marquee at the museum. The Friends annual general meeting will take place at 2.30pm.

17-21 April - Spring Tour

This year the Friends' spring tour will be to Durham and Northumberland, visiting Beamish Open Air Museum and other places of interest. This is already fully booked!

Saturday 17 May - Visit to Chiltern Open Air Museum

We will be meeting the Friends of the COAM, who will be our hosts for the day. Exhibits include a 1940's Prefab, a Victorian farmyard and an Iron Age house. Full details of the programme for the day will be sent out with your tickets.

Tickets - £10.00, including coach fare and donation to the museum

Wednesday 11 June - Visit to Michelham Priory and Firle Place

In the morning we will visit Michelham Priory, the remains of an ancient priory incorporated into a Tudor mansion, with a physic herb garden in the grounds.

arranged another full programme

There is also a watermill, Elizabethan barn and 14th century gatehouse. In the afternoon we tour Firle Place, the home of the Gage family for more than 500 years, which houses an important collection of old master paintings and French and English decorative arts. The tour will be followed by a cream tea in the Firle Place restaurant. Restaurant facilities are available at Micheham for lunch, or take a picnic.

Tickets - £14.00, including coach fare, entry to both properties and tea

Wednesday 16 July - Visit to Bateman's, Burwash and Great Dixter

Bateman's at Burwash was the home of Rudyard Kipling. Here coffee and lunch can be bought at the house or take a picnic. Then we will tour Great Dixter House, home of the garden expert and writer, Christopher Lloyd, and have an opportunity to look round the gardens and visit the nursery. We hope to stop for tea on the return journey.

Tickets - £8.50 plus £3.80 for entrance to Bateman's if not a National Trust member

Visit to Highgrove Gardens

We hope to again arrange for a party of 25 Friends to visit the Prince of Wales' garden at Highgrove, but the date will not be known until the Prince's own diary is finalised. The trip will involve a long coach drive and a pub lunch. Preference will be given to those who did not go on the previous visit.

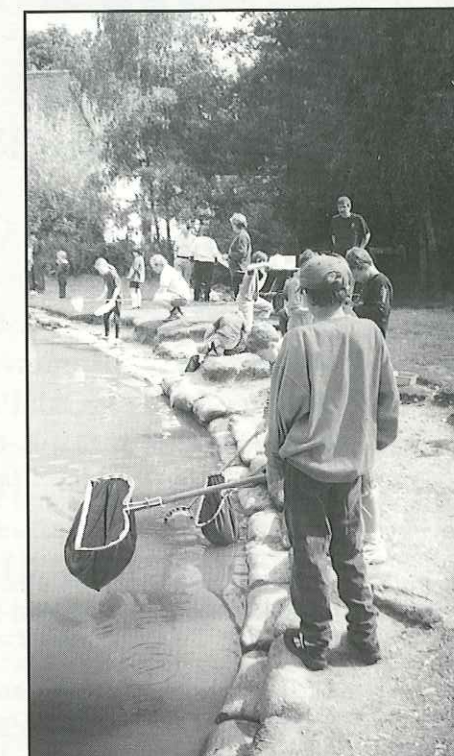
Details from Jean Piggott, with stamped addressed envelope, marked "Highgrove". Cost will include coach hire and donation to the Prince's Trust

Autumn expedition on a horse-drawn narrowboat

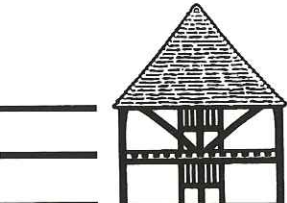
We will enjoy the peaceful progress of a horse-drawn narrowboat on the River Wey. Chris Howkins, a writer, illustrator and naturalist will give a commentary on the local history, riverside flora and workings of the horse boat. This will be a two-hour cruise and include tea on board.

Details from Jean Piggott, with stamped addressed envelope, marked "Narrowboat"

Pond dipping



Junior Friends pond dipping in the summer. The Junior Friends are looking forward to another busy year, meeting monthly and exploring all manner of activities connected to the museum's themes of buildings, rural crafts and countryside matters. The group is open to children between the ages of seven and 13 - and it's fun. To join in, contact Sue Shave on 01243 811363.



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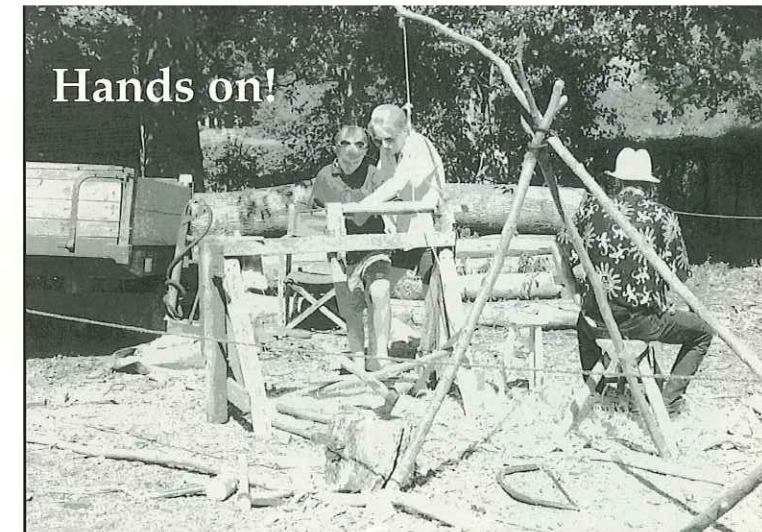
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Hands on!



Activity weekends offer everyone a chance to try their hand at a variety of rural skills - here a boy learns something of the art of the pole lathe worker.

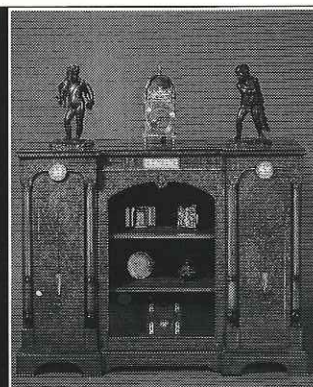
□ The Worshipful Company of Plumbers and the Lead Sheet Association and the Worshipful Company of Masons continue their interest in the lead and stonework exhibition in Court Barn. The new centrepiece, which has created a lot of interest for visitors, involving stone, lead and copper was completed by the two companies, with Broderick Structures Ltd carrying out the copper cladding with sheet copper donated by the Copper Development Association. Richard Murdoch covered the pitched roof with lead sheet, donated by the Lead Sheet Association. A new ornamental rainwater head with down pipe and shoe has been fitted. The centrepiece was inaugurated at a function last year when a plaque was also unveiled in memory of Past Master of the Plumbers' Company, Henry Baker, who was instrumental in the development of the exhibition.

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Trustees in profile

Continuing our series in which museum trustees are de-mystified.

The museum is governed by a group of 20 trustees and has several vice presidents. Some have been involved with the museum since it was founded; others have joined us more recently. Trustees meet four times a year, delegating detailed strategy to a management board, which is advised by the museum director and senior staff.

Marjorie Hallam

Marjorie Hallam is our link with the early foundation of the museum. Now a vice president, she was one of the key people in the founding group, working with our founder, Dr Roy Armstrong, on building surveys and dismantlings in the 1960's and 1970's. Her long-standing interest in the countryside and local history was nudged towards vernacular buildings while she lived in Lincolnshire and studied under Professor Maurice Barley. After moving to Sussex she joined Roy Armstrong and R T Mason in founding the Wealden Buildings Study Group in 1964. Naturally she became deeply involved from the outset in the campaign to create an open air museum.

In the early years she helped with secretarial work, lecturing and publicity, as well as the important task of surveying buildings offered to the museum. Pendean Farmhouse, the Horsham shop, the Catherington treadwheel house and Boarhunt were among her major enterprises. She became a founding trustee and a member of the board. More recently she was honorary librarian and faced the challenge of encouraging Manpower Services Commission trainees in the cataloguing of Roy Armstrong's vast collection of transparencies. She will be presenting two field study courses at the museum this year. See diary on back page.

Nigel Stephens

Nigel Stephens has spent two separate periods as chairman of the Museum Trust, from 1987-1993 and from 1994-1996. A qualified chartered surveyor and auctioneer, he was senior partner and chairman of Whiteheads estate agents, based in Chichester, until 1986. Until retirement in 1988 he was director of General Accident Property Services and at Stewart Wyse and Ogilvie (Edinburgh). An honorary fellow of the College of Estate Management, he had a special professional interest in education and training. He is a former chairman of Chichester Round Table and secretary and then chairman of the Friends of Chichester Hospitals.

Michael Garston

Michael Garston is a trustee of the Leopold Muller Estate, which has donated £100,000 for the re-erection and interpretation of Whittaker's Cottages. A practising solicitor for 41 years, but now semi-retired, he is actively engaged as a trustee or board member in a voluntary capacity in approximately 16 national charities. These include his involvement with the National Maritime Museum at Greenwich, where he is a member of the museum's Building Committee, and the Royal Botanic Gardens at Kew where he is a trustee of the Foundation and Friends of the Royal Botanic Gardens.

Peter Gray ARICS

Peter Gray, who lives in Lingfield, Surrey, is president of the Wealden Buildings Study Group, of which Roy Armstrong was joint founder. A retired chartered quantity surveyor, he is especially interested in the study and recording of the early buildings of the weald and adjoining areas and in their publication. He is a member of the Vernacular Architecture Group and Surrey Domestic Buildings Research Group and is the author of several books and papers on timber framed buildings and villages. He believes that the museum should become the base and depository of all records of buildings in the weald and downland regions.

John Godfrey

John Godfrey, who lives in Arundel, has worked for West Sussex County Council for more than 20 years and is the Assistant County Secretary. He has particular responsibilities for the coast and countryside, Chichester Harbour and the Sussex Downs. He is also involved in the County Council's work on the arts, heritage, museums and archives, and is a director of the Arundel Festival. He writes and lectures on the history and landscape of Sussex and has had five books published, including the New Shell Guide to Sussex and a guide to the South Downs Way.

David Russell FRIBA FRSA

David Russell, who lives in East Sussex, is an architect and archaeologist who has been involved with the Museum since June 1966. He served on the Sites and Buildings Committee in the early days and has provided drawings and advice on a number of projects at the Museum.



Marjorie Hallam with Roy Armstrong during the dismantling of Pendean Farmhouse.

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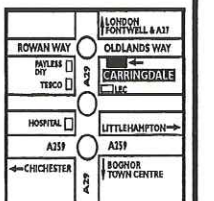
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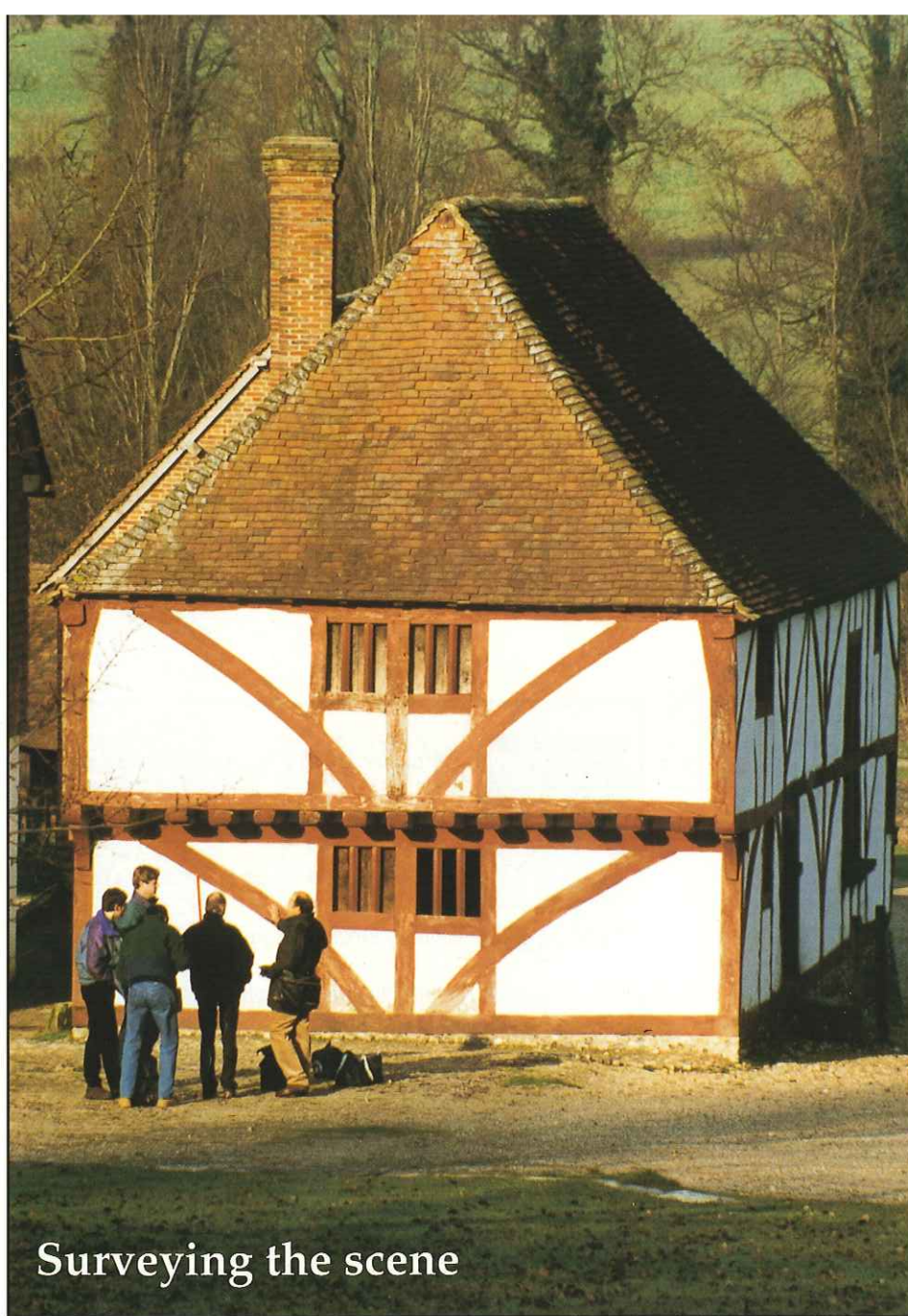
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Surveying the scene

Surveying students discuss their project in front of North Cray house early one spring morning last year.

News in brief

□ Plans are afoot to provide special tours and activities at the museum for National Environment Week in early May. Ideas include demonstrating how traditional management of the environment in the past produced goods for every-day life, and the effect this management had on the environment. Sue Shave is busy on the project, but would like some help. If anyone has suggestions, or would like to be involved, let her know at the museum office.

□ Thatching spars made by Albert Peacock continue to be in much demand and the museum continues to supply large quantities of cleft battens to a wide range of conservation projects. The Globe Theatre, which has used a large quantity supplied by the museum, still

requires supplies for the final stages of the reconstruction.

□ The Sussex Downs Conservation Board has once again commissioned the museum to assist in the extraction of timber thinnings on Duncton Hill, near Petworth using our specialist horse logging equipment imported from Norway. The aim is to encourage the management of this important part of the Downs. The hillside is very steep and the owners are concerned that there is minimum damage to the soil structure and flora. This makes it an ideal task for horses. The museum is able to provide this horse-drawn timber extraction service for other organisations. It is especially useful on sites with a conservation value. Further information can be obtained from the museum office.

What's the connection ... between the 250th anniversary of the first game of women's cricket ... and the museum?

1997 is the 250th anniversary of the first game of women's cricket in England - which, believe it or not, was played between Singleton and Charlton Ladies Teams on the cricket ground just opposite the museum!

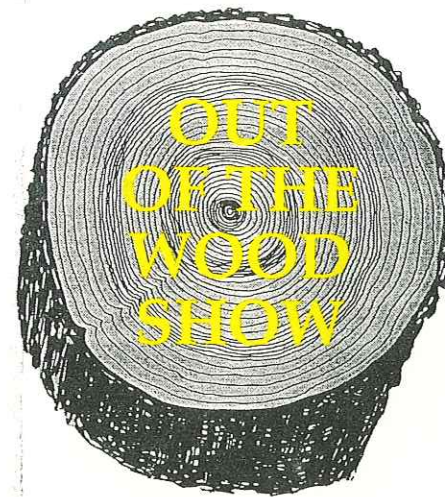
Singleton Cricket Club is celebrating with a special event on Sunday 13 July involving the Women's Cricket Association quarter finals to be played at Singleton with coverage by Sky TV. The museum will be joining in with the celebrations by staging an exhibition, *Cheerleaders to Champions!*, on the development of traditional women's sports including cricket, golf, archery and cycling. On match day we will be running a special event with displays of women's archery, stoolball etc as well as sports for visitors to take part in. The exhibition will run from Monday 7 July to Saturday 19 July in Crawley Hall.

Sue Shave, interpretation officer, is looking for volunteers who would be interested in helping her develop the exhibition or in staffing it during the two week public opening. Expertise in the subject is not necessary!

If anyone has any photographs, other material, information or local sport connections, please let Sue know. "This is going to be a very exciting and interesting exhibition - do come and be part of it," she says.

□ The museum received an unusual request to source material for a conservation project on the River Thames. A contractor working on river bank consolidation had been asked to construct a live willow wattle. These woven structures built in situ will root and provide a long-term defence against erosion. With the help of the Arundel Wildlife and Wetlands Trust we were able to assist the contractor in finding the material. We also supplied hazel faggots for similar work.

□ National Science, Engineering and Technology Week is run every year by The British Association for the Advancement of Science for schools and the general public. The very successful Building Materials Workshop will be on offer again and Richard Murdoch is to run a repeat of his workshop on lead casting.



A brand new event is planned in the museum's busy calendar this year on Saturday and Sunday 20/21 September. The *Out Of The Wood Show* will focus entirely on things made of wood. Timber-frame buildings, sculptures, furniture, musical instruments . . the ideas are myriad and growing! Promoted in association with *Traditional Woodworking* magazine, the event will use the whole museum site as well as a large marquee. Trade stands, demonstrations, lectures and activities for visitors are planned. A new event not to be missed . . .! Enquiries to Carol Hawkins.



Spring cleaning

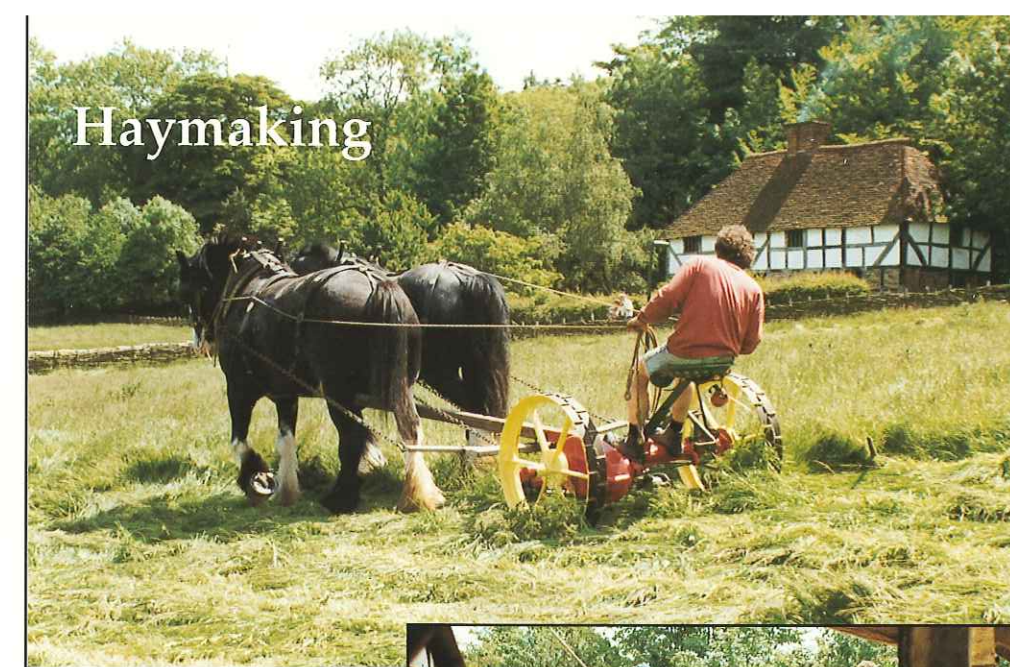
Christine Holder has her work cut out when it comes to cleaning the museum buildings and exhibitions. But sweeping the market square is surely a task and a half!

Overcoming another hurdle

Andrew Hodby carrying freshly-made hazel hurdles into the new shelter in the car parks where woodland coppice products such as hurdles, spars and battens are stored awaiting sale and transport.



Haymaking



Above, stockman, Peter Albon with museum Shire horses, Neville and Baron, cutting a dense crop of grass below Pendean Farmhouse, and right, bringing it home to the rickyard at Bayleaf Farmstead with Pete Betsworth atop the stack.



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A true cottage – Whittaker's Cottages, Ashtead

Richard Harris describes research into materials used in the museum's latest building exhibit

ORIGINAL SITE

In 1838, according to the Ashtead Tithe Map, Richard Whittaker, an agricultural labourer aged 67, lived in a cottage at the north end of a strip of land on the west side of Ashtead Common (known as Woodfield). He had just over an acre of land and was an owner/occupier, one of only about a dozen in Ashtead – 85 per cent of the parish was owned by The Hon. Falk Greville Howard.

By the time of the 1851 census Richard Whittaker had died but his wife Elizabeth evidently survived him, as she is listed as a washerwoman with three lodgers.

Then, in the late 1850s, the London and South-Western Railway Company built the Epsom and Leatherhead Railway

though Ashtead, opening on 1 February 1859. The station was on the common, about 200 yards east of Richard Whittaker's cottage, and the railway line passed through his paddock. By 1867, when the parish was surveyed for the 6in OS map of 1871, a pair of cottages had been built facing the railway on the southern part of Richard Whittaker's paddock, and these are the cottages that have been re-erected at the museum. Fig 1. Clearly they were built as a consequence of the building of the railway, and the fact that they were always known as Whittaker's Cottages suggests that Elizabeth Whittaker, or a descendant, built them using money received from the LSWR. However, the cottage in which she lived was unaffected

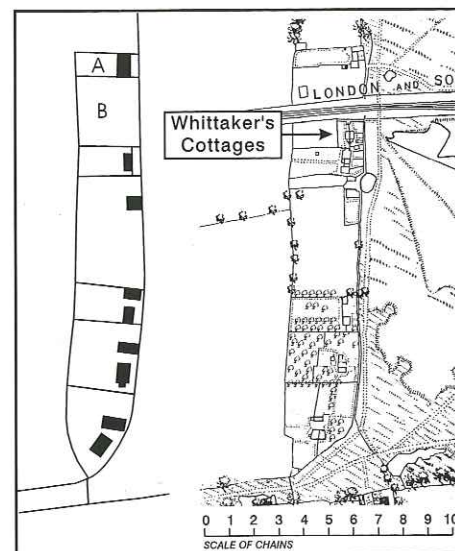


Fig 1. The group of cottages on the west side of Woodfield (Ashtead Common). Left, as shown on the Tithe Map, 1838 – Richard Whittaker owned and occupied the cottage A and paddock B at the north end of the group. Right, as shown on the 1st edition 25in OS map – the new railway, opened in 1859, went through the middle of Richard Whittaker's paddock, and the cottages were built on a plot one chain square between the railway and the southern boundary of the paddock.

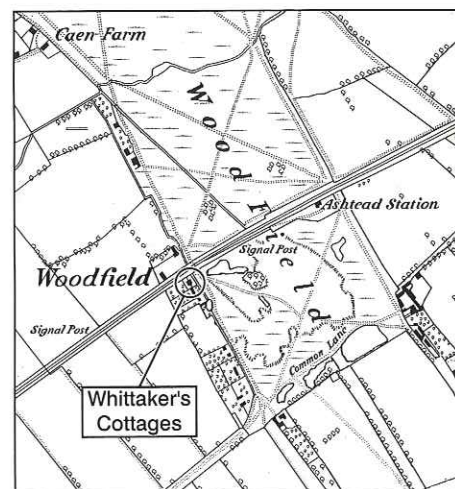


Fig 2. Whittaker's Cottages, Woodfield, the railway and the station, as shown on the 6in OS map of 1871.

by the railway so the cottages would have been built for rent.

Siting the cottages at the museum caused us great difficulty, as we have no railway line for them to face! After much discussion we decided to place them in such a way that the museum site is similar to the original site on at least two sides. Greenways field, on the original east side, is a large open area not unlike Ashtead Common, and the original south side is hemmed in by other buildings. Fig 2.

ACRES AND HECTARES

While working on the site plans we noticed that the original site for the two cottages was approximately 66 feet square, and this suggested one of the

ways we could use the exhibit to open up a new area of interpretation for our visitors. One chain of 66 feet/22 yards was a very important measurement in pre-metric land surveying, and is one of the Imperial measures that still forms part of the language, in that it is the length of a cricket pitch. We hope to have a surveyor's chain on view so that visitors can see the tally marks that subdivide it.

A square of 22 yards has an area of 484 square yards, which those old enough to have learned Imperial measures at school will recognise as one tenth of an acre (4840 sq yds). This reminds us that while a hectare is a square of side 100 metres, an acre is defined as a rectangle 1 chain by 1 furlong (10 chains), regarded as the area that could be ploughed by a horse in a day. Fig 3. The cottages thus occupied a

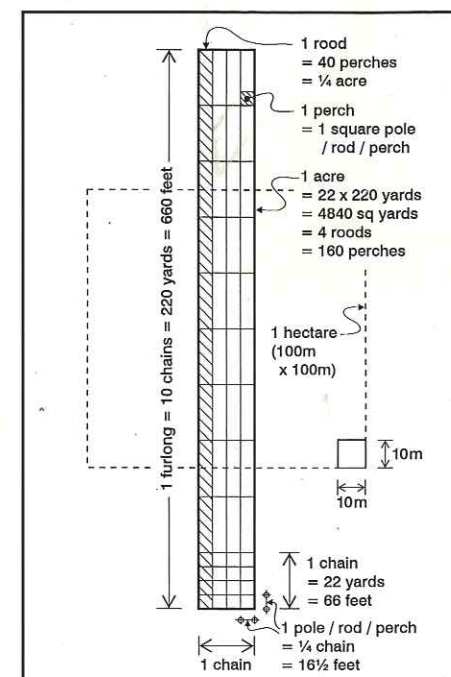


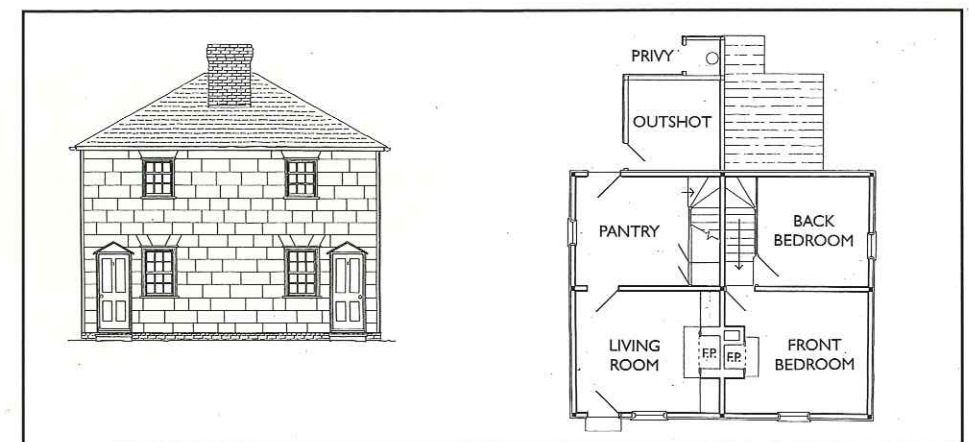
Fig 3. Construction and sub-division of an acre, with a hectare drawn to the same scale.

site of one tenth of an acre – one twentieth of an acre each. Unfortunately, visitors will also have to be told that, as the Rev. Arthur Young pointed out in his *General View of the Agriculture of the County of Sussex*, "There are several sorts of acres, a great source of perplexity and confusion – the short acre, the statute acre, the forest acre, and various others: the forest acre is nine score rods; the statute acre eight score; the short acre six score in some places, in others five score!"

PLAN OF THE COTTAGES

"No cottage ought to be erected which does not contain a warm, comfortable, plain room, with an oven to bake the bread of its occupier; a small closet for the beer and provisions, two wholesome lodging rooms, one whereof should be for the man and his wife, and the other for his children." (J Gwilt, *An Encyclopedia of Architecture*, 1876).

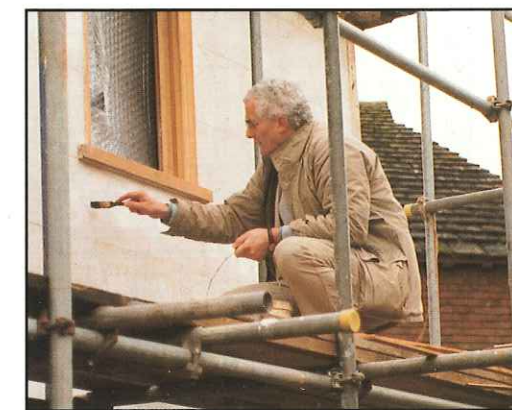
Whittaker's cottages correspond closely to this layout proposed by Joseph Gwilt. Each cottage had two rooms on each floor, plus a rear outshot and a privy. The front room was heated, while the back room contained the stairs. Fig 4.



This arrangement is extremely simple, but has a long history and tradition behind it.

I first took conscious note of this plan while doing fieldwork in Worcestershire in 1979, where I examined numerous cottages dating from the 17th to the 19th century. In the two-room plan, the entrance was always into the heated room and the stairs were always in the unheated room, as in Whittaker's Cottages, but what caught my attention was the fact that all these cottages were less than 14 feet wide, and most were only about 12 feet. All larger houses had different plan arrangements – and even if they only had two rooms, the stairs would be by the fireplace rather than in the unheated room. In addition, it appeared that the size of the heated room was always within a narrow range of about 120-170 square feet, while the "inner" unheated room varied from being little more than a cupboard to being almost as big – but never quite as big – as the heated room.

Fig 4. Elevation and plan of Whittaker's Cottages. The ground floor plan is on the left, the first floor on the right.



Richard Harris working on the front elevation which was plastered and lined to imitate ashlar stonework.

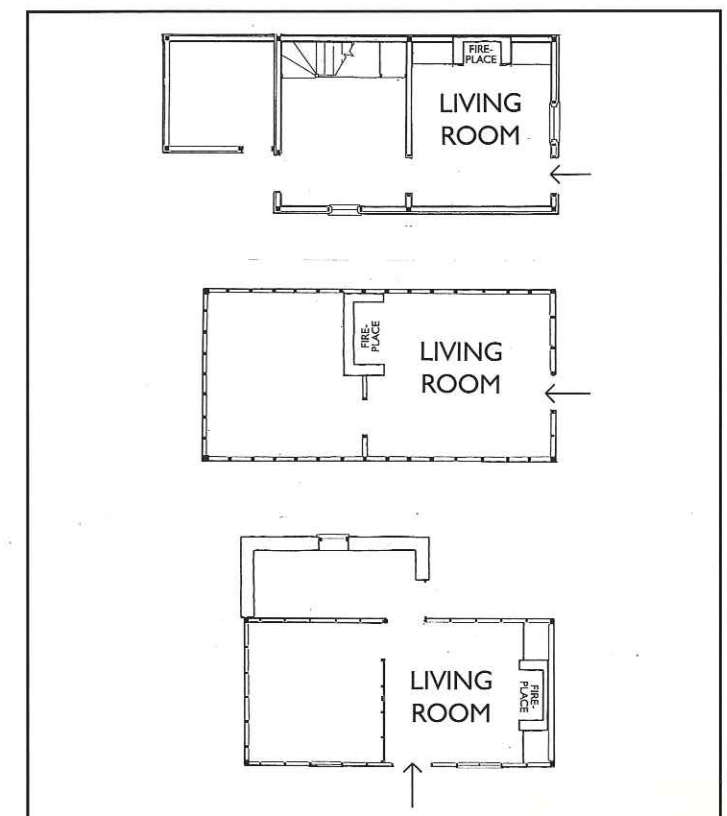


Fig 5. Plans of three cottages at the museum. Top, Whittaker's Cottages; centre, Toll Cottage; Beeding and bottom, "Squatter's Cottage", Lodsworth.

From correspondence with other researchers around the country it appears that cottages with these features were very widespread, to the extent that the plan type could be said to rival that of the medieval open hall in importance. At the museum we now have three examples of the type. Whittaker's Cottages, the Toll Cottage, and the "Squatters Cottage" from Lodsworth which was dismantled two years ago and is in store. Fig 5.

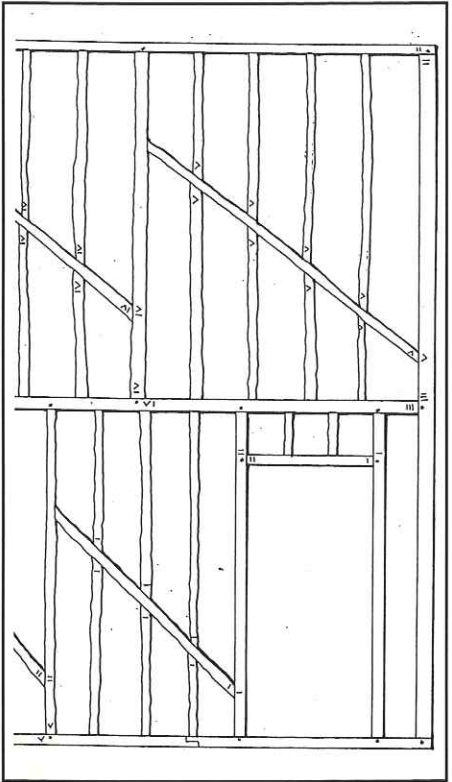


Fig 6. Part of the south wall frame of Whittaker's Cottages showing carpenter's numbers.

The Domestic Buildings Research Group in Surrey has recorded many cottages, including medieval ones, and Joan Harding is writing a study of them called "True cottages or narrow houses in Surrey", and Whittaker's Cottages will be one of her examples. We hope that this article will be published by mid-1997 to accompany the opening of the cottages at the museum.

There is some evidence that 12 feet was accepted as an "appropriate" width for cottages. John Wood of Bath rationalised it by saying that "Cottages should not be more than twelve feet wide in the clear being the greatest width that would be prudent to venture the rafters of the roof with the collar pieces only", and A. Crocker wrote in *Communications to the Board of Agriculture* (May 1796) that: "Twelve feet is a width sufficient for a dwelling that is to be deemed a cottage; if it be wider, it approaches too near to what I would call a house for a superior tradesman."

The plan of Whittaker's Cottages, with the main room and fireplace in the front is different from that of classic 19th century urban terraced houses, which have the main living room at the back. Childhood visits to my grandparents in Birmingham have left vivid memories of how such houses were lived in.

The front room, by the front door, was the parlour, and was seldom used. The rear room was the living room, with a fire burning in the range, a dresser and a dining table, and my grandfather's chair by the fire. The kitchen, which seemed to retain perpetually the smell of the Sunday roast, was at the back. It is important to notice that Whittaker's Cottages are actually the reverse of this: the only ground floor fireplace is in the front room, so the cooking must have been done there in a small range, while the unheated back room must have been used as a pantry or scullery. The difference between these two patterns may reflect the difference between a cottage and a "house for a superior tradesman" as mentioned by Crocker.

CONSTRUCTION: THE FRAME

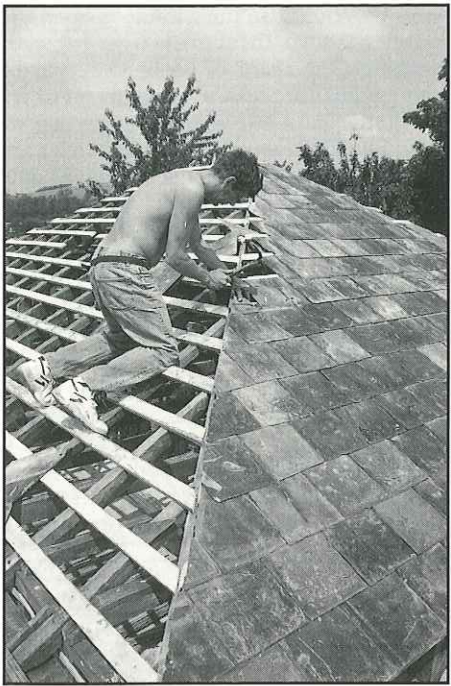
The cottages are timber framed. At first sight the design of the frames looks very different to that of the older timber-framed buildings at the Museum, with their heavy oak timbers and panels of wattle and daub, but the contrast is not as great as it might appear.

The most obvious difference lies in the size of the timber. In Whittaker's Cottages the timbers are all the same thickness, approximately four inches – the main posts are 4in square and the studs and braces are 4in x 2in – whereas in older buildings the main posts would typically be between 6in and 9in square, and the studs between 6in x 3in and 8in x 4in.

In terms of carpentry technique, however, the cottages were constructed in the same tradition as earlier timber-framed buildings. Every timber was jointed with a mortice and tenon (except the braces, which were nailed) and all the joints were scribed to fit. Each timber will only fit in one place, and therefore numbers were used to identify them, just as in earlier buildings. Fig 6.

Another link with the ancient traditions of timber framing lies in the method of conversion of the timbers. All the structural timbers show the marks of the side axe for squaring the log and the pit saw for sawing into smaller sections. Virtually every piece of timber in the whole building was converted in this way, a striking illustration of Britain's slow rate of progress in mechanisation of the timber industry compared to other industries – such as the new steam railway a few yards from the front of the cottages – and other countries, where powered sawmills had been commonplace for over a century.

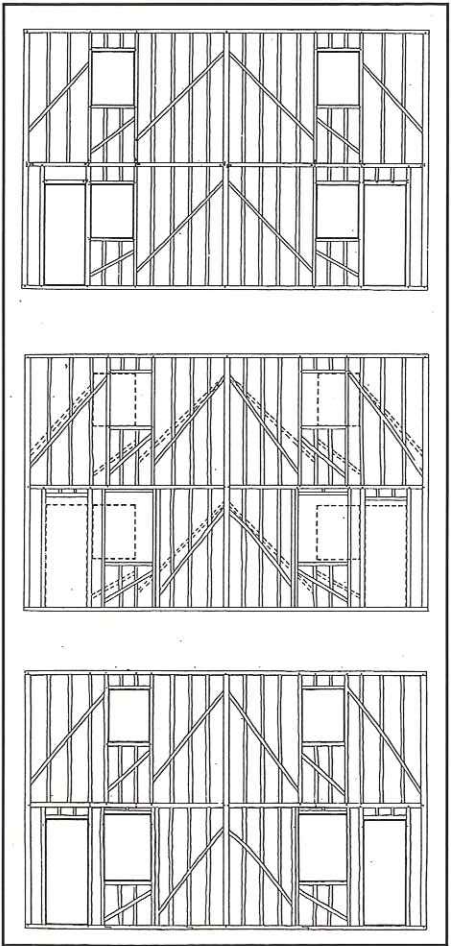
One very interesting feature of the frame is that the front elevation was, in effect, framed twice, in order to modify



Applying the slates to the roof in the summer. Two sides of the roof retain the original slates, while the other two have modern slates derived from the same Welsh quarry which provided the originals in the last century.

the design. The original design could be reconstructed from close examination of the mortices and marks on the timbers. Fig 7. The aim of the change seems to

Fig 7. The frame of the front elevation of the cottages. Top, as originally designed and framed. Centre, the changes to the frame. Bottom, the final design of the frame.



have been to enlarge the ground-floor windows, and to move them away from the doors; the doors were also heightened. We can be certain that the changes were made before the frame was erected because the new joints were given new numbers, chiselled into the timber, while the old numbers were chiselled off – the only instance I have ever seen of numbers being "erased". Some new timbers were used, but marks on the main braces, on either side of the central post, indicate that they were re-cut for their new angle and position. Another change was that the windows on the side elevations were inserted – the original design of the side frame had no provision for windows. This would have meant that the back rooms were unlit – a rather unsatisfactory feature of the design!

Fig 8 shows the framing of the front elevation of a pair of cottages, as proposed by John Wood in 1806. It bears a very close resemblance to the original design of the front frame of Whittaker's cottages, the main difference being that Wood's design has a greater separation between the door and the window. There is probably no direct connection between the two, but it is a fascinating illustration of the increasing interest of architects in the traditional methods of country builders.

CONSTRUCTION: TIMBER SPECIES

While sorting through the timbers in March 1996 it became obvious that while the main posts and plates were mostly of softwood, a number of different species had been used for the secondary timbers – the studs, braces and rafters. We enlisted the help of David Woodbridge, a timber scientist and consultant, and found no fewer than 11 different timber species – oak, elm, ash, beech, poplar, walnut, yew, mulberry, whitebeam, European redwood and spruce!

The biggest task was the analysis of the 430 secondary timbers in the wall frames – studs, rails and braces – and the overall distribution of species is shown in Table 1. The dominant species was elm, followed by oak, poplar and softwood (mostly redwood). The species were used more or less at random within the frames, but there were some interesting variations. The most obvious differences were between the use of oak and elm. As shown by the figures in Table 2 the carpenter had a tendency to use oak for braces, oak and softwood for storey-height studs, and elm for the short studs above and below braces.

There were also differences between the frames (Table 3), most noticeably the predominance of poplar in the two internal frames, and of softwood in the north and party walls. It is possible that these tendencies were conscious decisions, for example to keep as much poplar as possible away from the weather, but it is equally likely that supplies of timber were being sawn as the

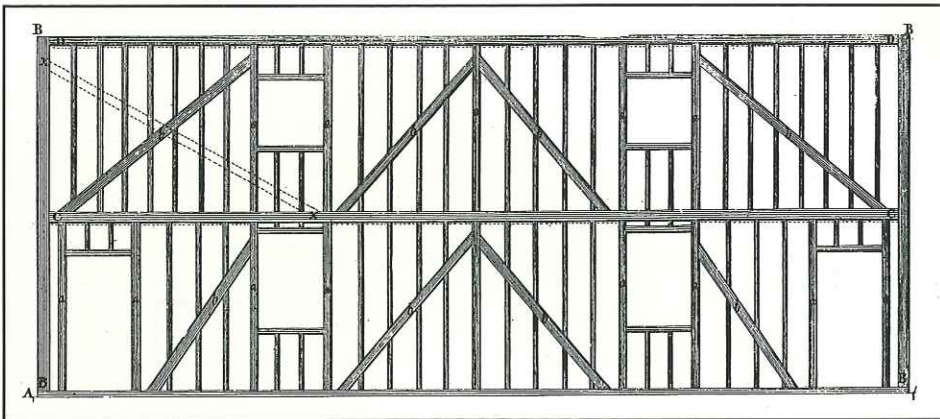


Fig 8. The framing for the front elevation of a pair of cottages, from John Wood's Plans for Cottages, 1806.

TABLE 1 Overall usage of each species		
Species	Number	Percent
ELM	186	43
OAK	91	21
POPLAR	51	12
SOFTWOOD	51	12
ASH	21	5
BEECH	16	4
WALNUT	3	1
MULBERRY	2	0
YEW	1	0
WHITEBEAM	1	0
UNKNOWN	7	2
TOTAL	430	100

TABLE 2 Usage of species by type of member			
Species	Short studs	Storey-height studs	Braces
ELM	48	12	43
OAK	19	39	38
POPLAR	14	12	2
SOFTWOOD	5	37	10
OTHERS	14	0	7
TOTAL	100%	100%	100%

TABLE 3 Usage of species in each wall frame						
Species	North	South	East	West	Partition	Party wall
ELM	60	41	39	49	13	77
OAK	6	44	30	29	9	3
POPLAR	11	4	4	0	37	0
SOFTWOOD	14	5	9	9	26	17
OTHERS	9	6	17	13	15	0
TOTAL	100%	100%	100%	100%	100%	100%

framing progressed and that the poplar just happened to become available when the internal frames were being laid out.

CONSTRUCTION: TIMBER CONVERSION

Many researchers are interested in the question of how trees were converted into timbers suitable for framing. This is one of the areas of research to which we can make a substantial contribution at

the museum, so every timber in the Ashted cottages was examined to ascertain the method and type of conversion. The method of conversion was to use axe hewing and pit sawing, but it is the particular tool marks on each face and the relationship of the rectangle of the timber to the original circular cross section of the tree that reveals the type of conversion. The results are shown in Figs 9-13.

Primary framing timbers: posts, plates and mid-rails

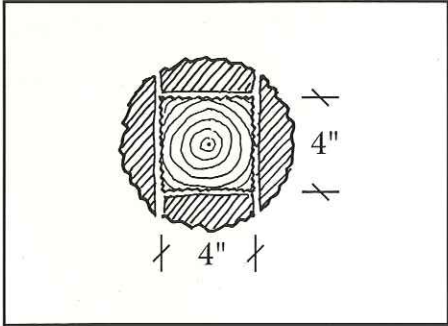


Fig 9. The sole plates were all oak, in short lengths and taken from small trees. All the top-plates and mid-rails were softwood (Baltic Redwood, Pinus Sylvestris), as were seven of the nine main posts – one exception was oak, the other elm. Conversion mainly boxed heart, pit-sawn all round, but some pieces have hewn surfaces – no regular pattern.

Secondary framing timbers: studs, rails and braces

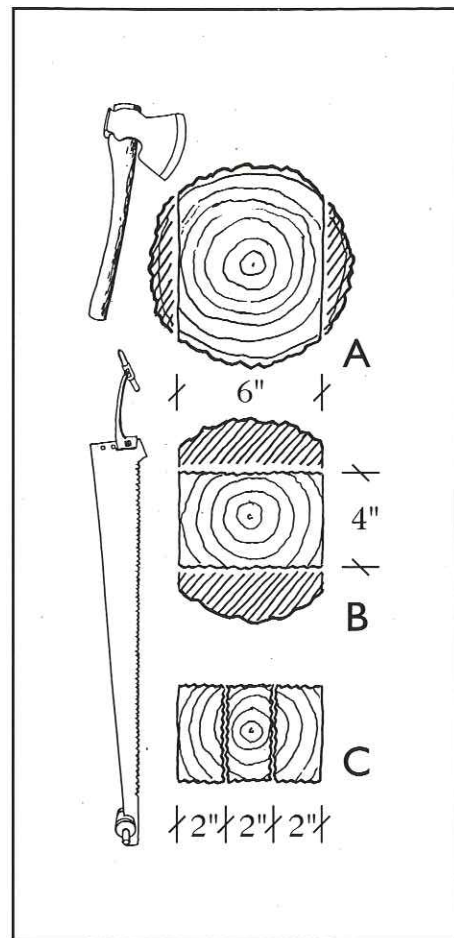


Fig 10. Eighty per cent of the 430 timbers fall into one of two patterns: either sawn all round, or with one of the 4in faces hewn. The method of conversion was a) Hew two opposite faces to a width of 4in or 6in; B) Saw 4in slab; C) Saw into 3No 4in x 2in pieces. This method of conversion should produce one third of the timber with all faces sawn and two thirds with one hewn face. The oak, poplar and softwood conformed roughly to this proportion, but over 50 per cent of the elm timbers were sawn all round, perhaps indicating that the elm trees were of such poor quality that some of the outer pieces were discarded.

Rafters

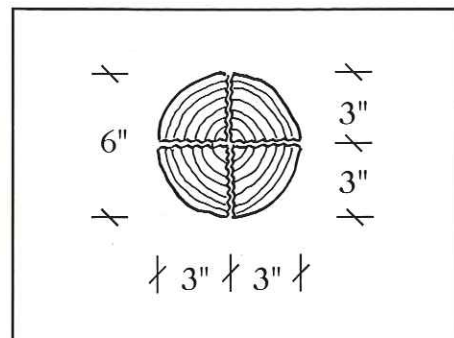


Fig 12. Predominantly softwood (77 per cent) with some oak (16 per cent) and a few pieces of elm, poplar and beech. Most of the softwood was sawn from round logs of about 6in diameter, with the bark axed off. David Woodbridge points out that these were probably imported top logs from mature trees (rather than saplings) because of the closeness of the rings, and believes that they may have been converted with steam or water-powered "Deal Frames" saws, possibly in their country of origin.

Floor and ceiling joists: first floor

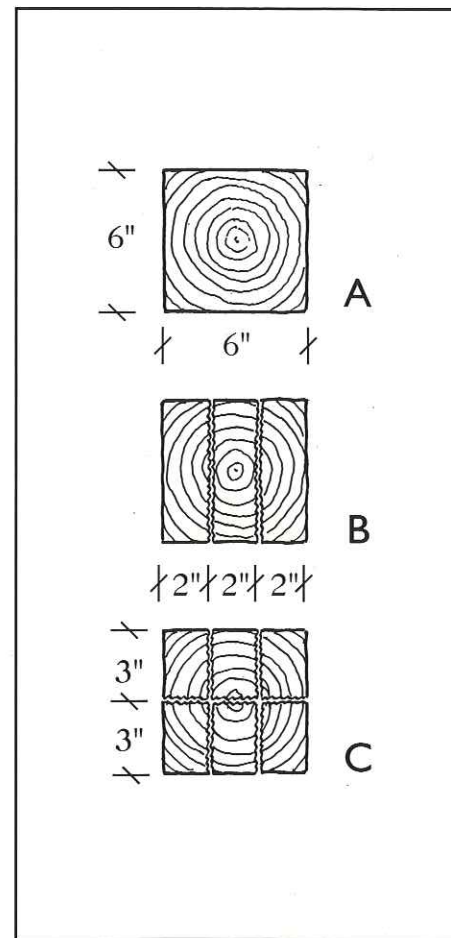


Fig 11. All softwood (Baltic Redwood), approx. 6in x 2in. They were pitsawn from a 6in square hewn balk, A and B, probably imported in that form and pitsawn locally. Of 356 feet of joists, 129 feet were sawn both sides while 227 feet had one hewn face – exactly the right proportion. The ceiling joists were probably converted in the same way as the joists but then cut in half again (C).

Weatherboards

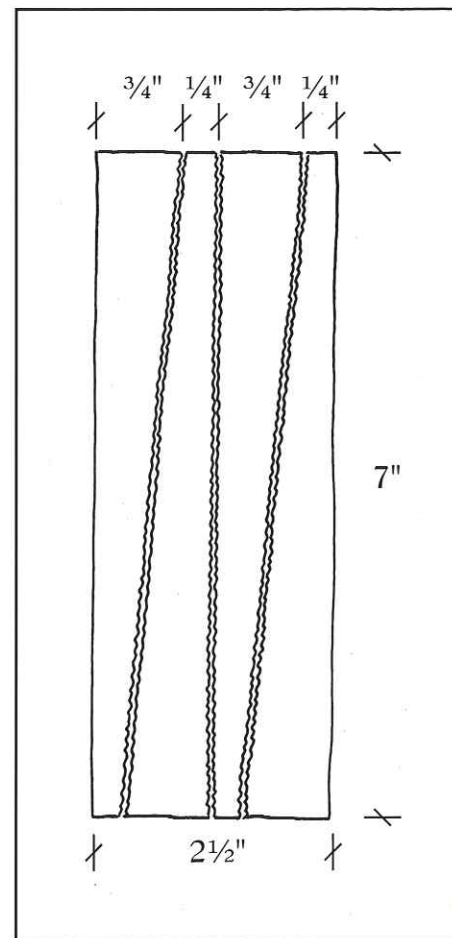


Fig 13. About 75 per cent of the original weatherboards survived: feather-edged softwood boards, about 7in deep and tapering from 3/4 in to 1/4 in in section. There were both pit-saw and mechanical saw marks. Pit-saw marks can reveal which way up the timber was when it was being sawn, so for each weatherboard we noted not only which type of saw was used but also which way up it was. This showed that the weatherboards were pitsawn from mechanically sawn 7in x 2 1/2in boards. The mechanical saw marks were much rougher than the pit-saw marks and were always fixed against the frame, never facing outwards.

The picture that emerges from this analysis is of a mixture of two main types of timber being used: imported softwood and locally grown small diameter mixed hardwoods. Very roughly, the building contains 240 cubic feet of structural timber and 80 of cladding timber (weatherboards and floor boards), a total of 320 cubic feet. The hardwoods make up about 36 per cent of this total (oak 16 per cent, elm 13 per cent and others 7 per cent), the other 64 per cent being imported softwood.

To get an idea of the scale of the operation, an assortment of 40 or so softwood barks would have been

required, from 16 to 24 feet long and 6in x 6in to 8in x 8in in section – something like three tons of timber. As to the locally-grown hardwoods, the trees would have been small, perhaps 8in-10in in diameter, and yielding only short lengths – perhaps from hedgerows, a copse or overgrown coppice. At a rough estimate, perhaps 30-40 oak trees would have been needed and somewhat fewer elms. There is no way of knowing where they came from but it is tempting to suppose that some, at least, might have come from Richard Whittaker's own property – a paddock of about one and a quarter acres, which could have supported up to 40 or 50 small trees.

MORTAR AND PLASTER

Traditional mortar and plaster were both made by mixing lime and aggregate (usually some form of sand) in the proportion of about 1:3. In Whittaker's Cottages the original mortar and plaster were both sampled during dismantling – the mortar from the brick chimney and brick plinth, and the plaster from the internal plastered walls and the rendered front. The plaster was all "three-coat work", consisting of a "pricking-up coat", a "floating coat", and a "setting coat". The pricking-up coat was applied direct to the laths or brickwork, then scored to provide a key for the floating coat, which was finished with a wooden float to give a flat but slightly rough finish. These coats were both about half an inch thick. The setting coat was very thin, less than an eighth of an inch, and was brought to a smooth finish ready for decoration. With care it was possible to separate the three coats from each other, so samples could be prepared of the material used for each coat.

Our first impressions were that there did not seem to be much difference between the mortar and the plaster used for the pricking-up and floating coats. To confirm this we dissolved away the lime, using hydrochloric acid, and passed the resulting clean aggregate through a graded series of sieves to obtain a profile of the distribution of particle sizes. Preliminary analysis by the museum was confirmed by more extensive analysis at the School of Conservation Sciences at Bournemouth University, and showed that the aggregate used was quite evenly graded with a high proportion of fine particles smaller than 63 microns (0.063mm). It also contained quite a lot of rubbish – bits of broken brick, clinker, plant fragments and, most interestingly a small glass bead. These details, and the general appearance of the aggregate, suggested to us that this was not sand but what was known as *drift*, or road scrapings.

In 1797, William Marshall wrote in *The Rural Economy of Gloucestershire*: "The scrapings of the public roads – namely levigated limestone, impregnated more or less with the dung and urine of the animals travelling upon them – are found

to be an excellent basis for cement. For ordinary walls, the scrapings alone are frequently used. And, from what I can learn, the proportion for the best building is not more than one part of lime to three of scrapings". Joby Lock, a builder's labourer who died in 1984, recalled that: "Another regular job was the digging of 'drift' from the verges of the road. Drift was the dust and scrapings which had been shovelled off the road surface in the days before the roads were tarred ... Road surfaces were continually worn down by the iron tyres of all traffic. When a surface was being renewed, the spent material was shovelled into the verges."

The top or "setting" coat of plaster was quite different. The profile of the aggregate peaked sharply at 150 microns, and visual examination under a microscope showed that this peak consisted of a fine silver sand. The mix was much richer in lime, with a ratio of less than 1:2 lime:sand, and there was some evidence that it contained lead – probably a small admixture of white lead to reduce cracking.

PAINT

We want the cottages at the museum to look as much as possible as they did when they were first built, so it was crucial for us to discover what colour they had originally been painted. Our consultant, Patrick Baty, took samples from the outside of the original weatherboards, mounted them in clear resin, and examined them under a microscope. He observed 13 coats – an average of one per decade, or a little more. The first five were white, and all the rest were green, except the seventh and eighth, which were brown. Inevitably, therefore, the outside will be painted white at the Museum – albeit a slightly creamy off-white to match the slightly impure lead white of the original.

Striving for complete authenticity, we are hoping to be able to use traditional lead paint for the outside of the building. Lead paint has, of course, been banned because of the health risk it carries, but exceptions can be made to allow its use on historic buildings. We await our licence with bated breath!



Whittaker's Cottages wrapped up against the winter weather. The plasterwork was susceptible to damage from frost and was covered for protection.

INTERPRETATION

The frame of the cottages was re-erected at Easter 1996, having been repaired by John Winterbottom and Paul Price, and work has proceeded steadily since then. The roof was slated, Mick Betsworth built the brick plinth and chimney and Roger Champion added the rear outshots, and repaired and re-fixed the weatherboarding. Roger has also cleaned, repaired and where necessary renewed the exterior joinery – windows and doorways – and for a few weeks in the late summer visitors were able to watch him doing this in an improvised workshop within the cottages. In October the front wall was rendered by Reg Knight, using lime plaster matching the original as closely as possible, and over the winter this lime plaster has been carefully protected from frost and freezing rain by an insulated screen covering the front of the building.

The final stages, in the first half of 1997, will involve completion of the interior of the building, and installation of interpretative material and furnishings. One of the cottages has been left unfinished inside so that visitors will be able to see all the details of construction, from foundations to roof, while the other will be furnished to give an idea of how it would have appeared during the late 19th century. This combination of two different interpretive approaches neatly reflects the museum's interest in both the construction and use of buildings.

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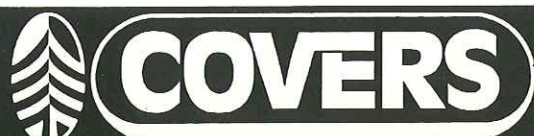
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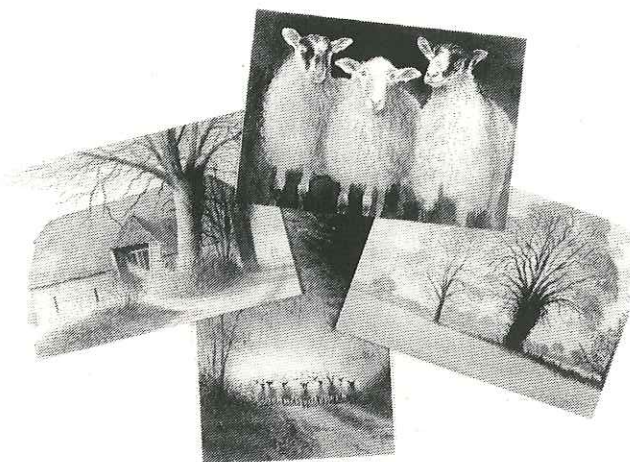
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Courses and seminars in demand

The museum's programme of one and two-day courses in association with Bournemouth University continues to develop in response to demand.

For professionals, particularly surveyors and architects, who increasingly have to attend courses for their "continuing professional development" (CPD) there are opportunities to learn more about specialist conservation aspects of, for example, brickwork or timber framing.

Seminars and hands-on opportunities to learn traditional skills such as charcoal burning and working with draught horses remain popular. New for this year is a day of introductory bee-keeping with Heather Champion and Dick Tutton, and a sketching day with Jan Roddick. The sketching day forms part of the museum's contribution to the national Adult Learners' Week, 18-25 May, which all museums are being encouraged to support, especially as it coincides with Museums Week.

Liberal studies lectures and courses this year include a talk on **Special Sussex Gardens**, by Consie Dunn, the West Sussex county organiser of the National Gardens Scheme and a residential study holiday, **People in the Landscape**, based at West Dean College, to be led by Richard Hunt with Marjorie Hallam and Dr Peter Brandon.

Marjorie Hallam is again leading a **Buildings in the Landscape - The Western Weald** four-part Saturday course, with a similar course in the autumn on **Buildings in Country Towns**.

The museum's gardener, Bob Holman, and friends, will be taking another of the enjoyable **Dawn Chorus Walks**, and there is to be an evening walk too, featuring (weather and fauna permitting) glow worms, nightjars and deer.

The second **Bournemouth University postgraduate MSc course in timber building conservation** led by Richard Harris is now under way at the museum, with a group of eight students.

See the Diary on the back page for course dates. Further details and booking forms are included with the magazine. For more information contact Carol Hawkins at the museum office.



SUPPORTING THE WEALD AND DOWNLAND MUSEUM

We are most grateful to the following for their generous assistance to the museum.

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Contributions to many projects including lottery project development, Walderton thatch, library printer, office computers, museum magazine, Junior Friends, artefact collection, Longport draught lobby and site maintenance.

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- The Association works to ease the burden of taxation on landowners and makes detailed Budget representations to the Chancellor of the Exchequer.

- In the regions the CLA puts the landowners' case to the local authorities and public agencies.

For more information contact the regional office at Roughfield Farm Office, London Road, Hurst Green, East Sussex.
Tel: 01580 879 667.

Heather Champion inspecting the beehives behind the millpond. Heather is leading a new introductory course on bee-keeping on 31 May.

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DIARY 1997

MARCH

- 5 Introduction to charcoal burning course
8 Buildings in the landscape - the Western Weald - course with Marjorie Hallam
14 Introduction to charcoal burning course
22 Buildings in the landscape - the Western Weald field trip
28-13 April Remains - exhibition of sculpture and photographs. Ted Vincent and Jane Meredith
30/31 Traditional Food Fair

APRIL

- 5 Friends' AGM 2.30 at the Museum.
Buildings in the landscape - the Western Weald field trip
9/10 Gauged brickwork course
10 Talk by Ted Vincent in association with Remains exhibition
16 Special Sussex Gardens - talk by Consie Dunn. 6.30pm. £5 inc glass of wine
17 Training seminar for conservation officers: Dismantling and re-erection of timber frame buildings
17-21 Friends' spring tour to Durham and Northumberland
19 Buildings in the landscape - the Western Weald field trip
24-27 MSc timber building conservation module

MAY

- 10 Heavy Horse Experience course
14 Traditional timber-frame construction course
15 Traditional timber-frame repair course
17 Friends' visit to Chilterns Open Air Museum
18-25 Museums Week and Adult Learners Week. Hands-on activities for adults!
18 Dawn Chorus Walk. 4.30am at Museum. £5 inc breakfast
22 Sketching Day at the Museum - with artist Jan Roddick

29-1 June

JUNE

- 2-20 Romanian students tourism management course.
Goodwood Race Evening
Heavy Horse Spectacular
Friends' visit to Michelham Priory and Firle Place.
The Copper Family entertain with Martin Muncaster: **Dovetail**
Heavy Horse Experience course
Trustees' AGM
Popeluc - Romanian/English folk trio: **Dovetail**
Illustrated talk on Romania - Henry Russell
21 Heavy Horse course for people with some experience
21/22 Model wheelwrighting exhibition. Crawley Hall
28 Artisan - three-part harmony group: **Dovetail**

JULY

- 6 Early Music at the Museum - Southern Early Music Forum
7/19 Cheerleaders to Champions! - exhibition on the development of women's sports
11 Family evening and open air "barn" dance: **Dovetail**
13 Traditional Women's Sports Day to mark 250th anniversary of first game of women's cricket at Singleton
16 Friends' visit to Bateman's and Great Dixter
18 Evening walk - *Glow worms, nightjars and deer.* 9pm. £3.
20 Rare and Traditional Breeds Show
24/27 MSc timber building conservation module

- 30-3 August Life in 16th century Pendean Farmhouse - History Re-enactment Workshop
31 Tudor Re-enactment for staff, volunteers and friends 6-8pm.

AUGUST

- 12 Richard III - Shakespeare in the open air performed by Illyria: **Dovetail**
16/17 Children's Activity Weekend
17 Heavy Horse Experience course
19 The Tempest - Shakespeare in the open air performed by Illyria: **Dovetail**
23-25 Traditional charcoal earth burn.

SEPTEMBER

- 6 Buildings in country towns - the Western Weald course
14 Novice sheepdog trials
20 Buildings in country towns - the Western Weald field trip
20/21 Out of the Wood Show

OCTOBER

- 4 Buildings in country towns - the Western Weald field trip
11 Buildings in country towns - the Western Weald field trip
25/26 Autumn Countryside Celebration
27-31 Half-term activities for children

DECEMBER

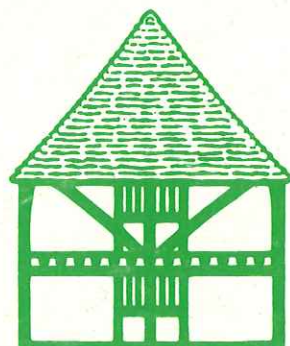
- 7 Tree dressing day
15 Christmas Carols. 7pm in North Cray House
26-4 January Christmas/New Year opening



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