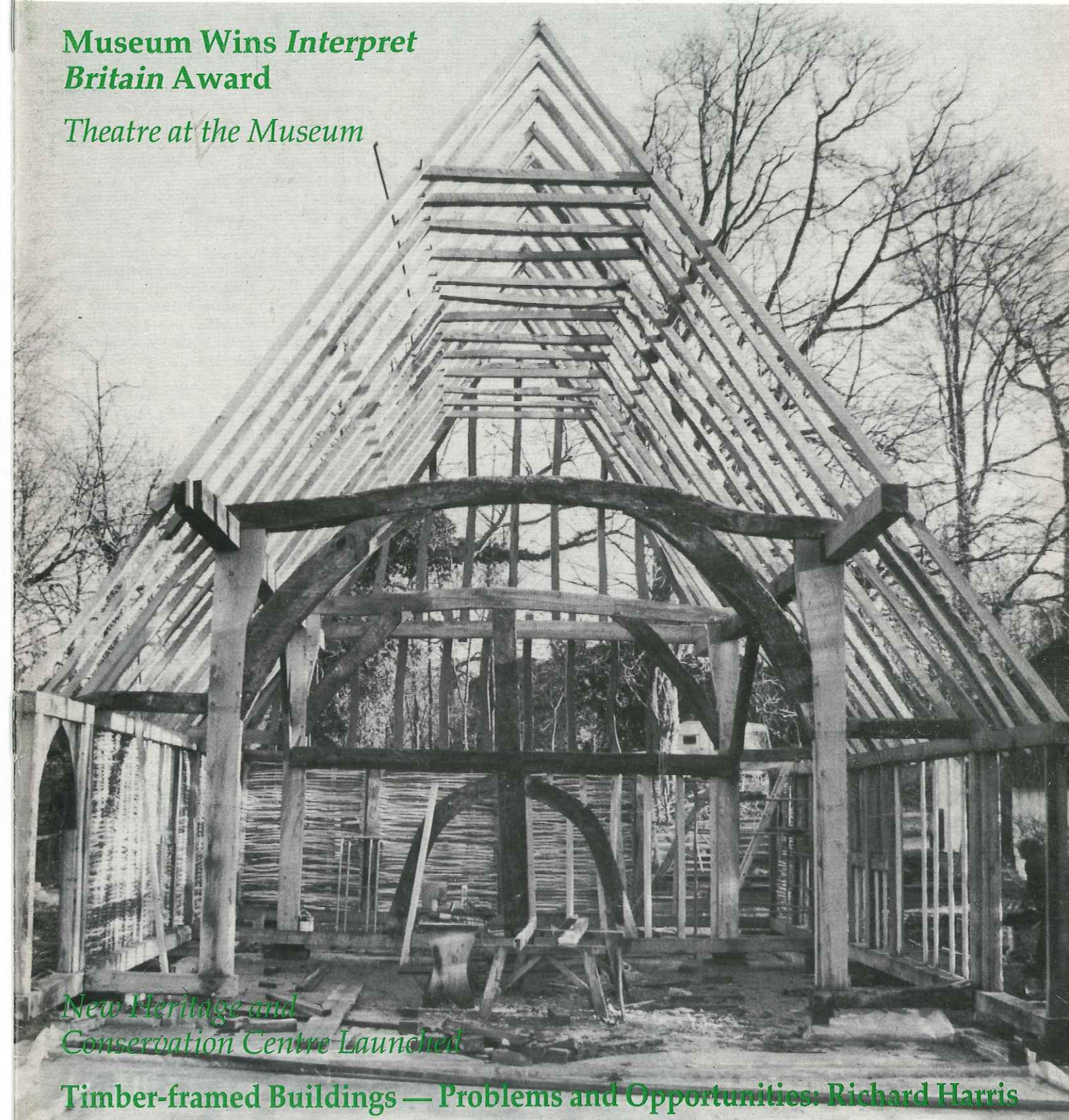


WEALD & DOWNLAND OPEN AIR MUSEUM —MAGAZINE—

*Museum Wins Interpret
Britain Award*

Theatre at the Museum



*New Heritage and
Conservation Centre Launched*

Timber-framed Buildings — Problems and Opportunities: Richard Harris

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Acknowledgements to The Conservation Practice, Midhurst, for sponsoring this year's magazine.

Cover Picture: The frame of Sole Street aisled hall at an advanced stage in re-erection during the Winter. See page 10 for report.
Photograph: Richard Pailthorpe.

Opening Arrangements 1991

March 2nd - October 31st
11.00 a.m. - 5.00 p.m. Open every day

From November 1st - February 29th the Museum is open Wednesdays, Sundays and Bank Holidays from 11.00 a.m. - 4.00 p.m.

Parties and School Visits

Parties and School Visits by appointment only. For party rates please request a special information sheet.

ADMISSION CHARGES — 1991

(Admission Charges include VAT at current rate)

Adults £3.00, OAP's £2.50
Children, Students £1.50
Family ticket (2 adults & 2 children) £8.00

Museum Office Tel. 0243 63 348

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 office.

VOLUNTEERS — THE BACKBONE OF THE MUSEUM

Since the foundation of the Museum, volunteers have played a crucial role in opening the Museum to the public. Their friendly attitude to visitors has earned the Museum its long-standing reputation for being a welcoming place (indeed, we have just won an award recognising this — see page ??). The novelty of voluntary work at the Museum has never worn off — it is just as buoyant today as it was at the Museum's foundation, something which is envied by many similar institutions. However, as the Museum grows and the number of exhibits expands, the need for volunteers increases. The time has come for a significant boost to our voluntary force of members.

Each day, the Museum needs a minimum of six volunteers — this will increase to an estimated 10 within the next two years. Many people come weekly, some more than once a week, and some monthly. The Museum's Warden, Keith Bickmore, has the unenviable task of compiling the daily rotas, sometimes having to deal with unavoidable last-minute cancellations.

What do volunteers do? Whichever task they are allotted for the day, they are instrumental in enhancing the visitor's experience at the Museum. Tasks range from welcoming visitors at the Ticket Office, serving customers in the shop, to stewarding the exhibit buildings where they chat to visitors and answer questions.

In addition to helping with opening the Museum to the public, there are other areas in need of voluntary help — such as manning the Museum's publicity caravan at shows. This year we propose to promote the Museum at other venues in the Chichester area during the summer holiday period.

The Museum also needs show stewards to help with special events run at the Museum such as the Heavy Horses Day and the Show for Rare Breeds. Public

We Need More of You!

safety is of paramount importance on these occasions and it is necessary, for instance, to steward animal lines.

Volunteers also assist with school and party visits acting as interpreters. Accurate interpretation of particular exhibits such as the Bayleaf Medieval Farmstead is especially important, and a special rota of stewards is needed for these more complicated and fragile elements of the Museum. This coming season additional help will be needed with the new Brick Exhibition and the Hands-on Exhibition, where visitors will be assisted in carrying out practical tasks enhancing their understanding of building techniques.

What do you need to become a volunteer? Nothing particular — but the following are useful: A good pair of legs! Fire-lighting capability. Stamina to cope with school parties and occasional bad weather! A packed lunch. A warm approach to your fellow man. An enjoyment in chatting to people. A reasonable or good memory for facts to aid question-answering! And of course you need time.

You will be able to make many friends among the other volunteers, and there is a wide-ranging programme of activities and events at the Museum and organised by the Friends at which you can meet everyone involved.

The Museum runs an active training programme for volunteers, including a full day before the season starts, and occasional seminars.

Many volunteers at the Museum have decided to join us on retirement — a regular duty on our wonderful site with plenty of interesting people is an excellent way of being useful and enjoying yourself at the same time!

If anyone would like to become a volunteer or knows of a friend who would like to join us, please contact Richard Pailthorpe at the Museum office.



The Friends in action during the Rare Breeds Show — special events provide excellent opportunities for recruiting members and volunteers.

Diana Zeuner



The Museum has won a prestigious Gateway Interpret Britain Award for its Bayleaf Medieval Farmstead project.

The award was presented to Richard Harris, the Museum's Research Director, at a ceremony at Caerphilly Castle in January by the Minister of State for Wales, Sir Wyn Roberts MP.

Museum Director Chris Zeuner and Carpenter Roger Champion also attended the ceremony and mounted an exhibition about the Bayleaf project for the occasion.

The Award Scheme, sponsored by Gateway Foodmarkets, is organised by the Society for the Interpretation of Britain's Heritage. Seven awards and a

number of commendations are given in recognition of good practice in environmental interpretation.

The Awards are considered among the most coveted for heritage-based tourist attractions to gain. This new award joins others which the Museum has received since its opening of which the most important are the Museum of the Year Award and the Times/Shell Community Museum of the Year Award.

SIBH Chairman David Uzzell said: "High standards of interpretation are essential to success in tourism. It's our biggest growth industry but we have a long way to go yet. These Award winners

The Secretary of State for Wales, Sir Wyn Roberts MP, centre, visiting the Museum's Bayleaf Farmstead display during the Award Ceremony, with Richard Harris, Research Director, and Roger Champion, Carpenter, right. SIBH Chairman David Uzzell, is on the left.

Museum Wins A Gateway Interpret Britain Award

can show the way to other attractions."

The judges took into account the various aspects of interpretation used at Bayleaf — the overall quality of the project and the research into careful replication, the standard of presentation to the public, the traditional exhibition upstairs in Bayleaf, first person interpretation through our stewards led by Thelma Jack and Peter Burton, the availability of the Time Machine Audio Tour, the Bayleaf guide and the guide to the garden. All these methods of enjoying and understanding Bayleaf are directed at three levels: school parties, families and the specialist visitor.

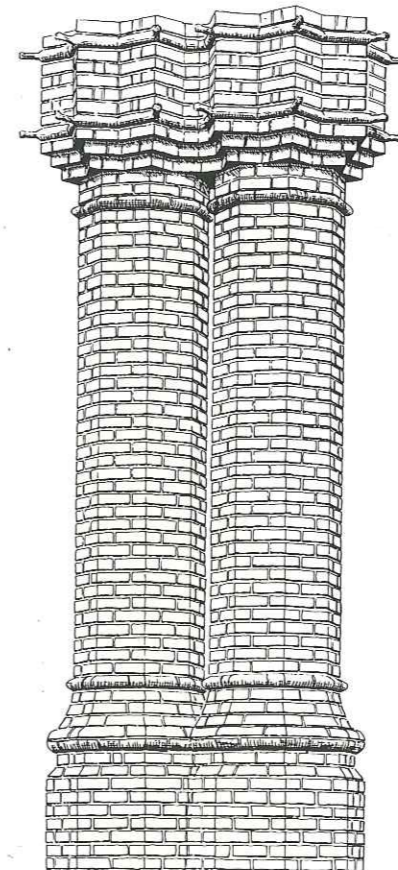
Brick Exhibition To Open in June

The Brick Exhibition in the Petersfield Drying Shed will be opened in June. Written by Richard Harris and supported by the Redland Brick Company, the displays will deal with bricks as they have been used in building, rather than the manufacturing process. However the first bay of the shed will be "furnished" as it might have been when in use.

The exhibition includes a series of mockups each representing a different period and using different techniques, constructed by bricklayers from the Redland Brick Company using new bricks, but of the correct dimensions.

The mockups are accompanied by panels of text and illustrations, most of which will be cunningly mounted in the roof so as not to interfere with the appearance of the drying shed when viewed from outside.

One of the mockups in the new exhibition is the base of a sixteenth-century octagonal chimney, showing the use of moulded bricks. This drawing, which has been specially prepared for the exhibition by Richard Harris, shows a pair of chimney shafts of the same form.



An Imaginative Fund Raising Drive

Enclosed with this Magazine are details of the Museum's latest initiative designed to help fund its development. The scheme involves the issue of unsecured loan notes as a way of reducing interest rates paid during the winter months and raising capital for development.

The Museum will be taking great care during these difficult times to contain expenditure but at the same time will continue to strengthen its existing activities and services. Some new initiatives are described in this Magazine. The support of the Museum's membership through this scheme can greatly assist in achieving this objective.

Please consider taking part. Already a number of Trustees and staff are assisting through this means. We urge you to read the Prospectus carefully in considering whether you can help. Interest is payable on all loans at either 0%, 4% or 8%, depending on preference.

Joint Centre for Heritage Conservation and Management Launched in Dorset

Museum Joins New Training Initiative

Three organisations, each with their own special experience in the field, are cooperating together to form a new Centre for Heritage Conservation and Management.

The Bournemouth Polytechnic's Department of Tourism and Heritage Conservation, the Weald and Downland Open Air Museum, and the Stone Conservation Unit of Weymouth College will be working together in a range of heritage disciplines, including archaeology; building conservation; site, museum and collection management; and the presentation of heritage to the public.

Bournemouth Polytechnic, (until recently known as the Dorset Institute) offers a Bsc(Hons) in Heritage Conservation. The staff engaged in this course will be developing a range of other opportunities in association with the Museum and Weymouth College. A number of seminars and conferences are planned for the first year of cooperation.

The Conservation Unit at Weymouth College runs a postgraduate course in Architectural Stone Conservation, the only one of its type in the UK. It has specialist facilities and research capability in stone conservation and repair and has undertaken important monument and building conservation projects.

The Department of Tourism and Heritage Conservation at Bournemouth offers undergraduate and post graduate programmes to over 650 students. It has extensive specialist research and consultancy facilities covering both the scientific and business aspects of heritage conservation.

The Museum, founded over 20 years ago to encourage an interest in the built environment, has developed considerable expertise and skill in the repair and care of timber framed buildings. It has also considerable experience in the practical management of heritage attractions.

From the Museum's point of view this initiative offers an expansion of experience available to us, opportunities for cooperation on new ideas, and also the chance to offer training in our own field of expertise.

Richard Harris and Chris Zeuner will both be involved at Singleton and in

Dorset. The Head of the Department at Bournemouth is Professor Bryan Brown, and the Associate Head of Department is Mark Brisbane. At Weymouth Geoffrey Teychenne and Tony Steel make up the team.

JOINT CENTRE'S 1991 PROGRAMME

- | | |
|----------------|--|
| 28
FEBRUARY | OFFICIAL LAUNCH
Synopsis: A lunchtime launch of the new Joint Centre for the press and Heritage Conservation professionals. |
| 1 MARCH | AIM CORPORATE PLANNING WORKSHOP FOR MUSEUMS
Synopsis: This workshop has been planned as part of the follow up to AIM's report, New Visions for Independent Museums in the UK. It is tailored to the needs of small and medium sized museums, galleries and other heritage organisations. |
| 20-27 APRIL | COUNTRYSIDE COMMISSION — EUROPEAN COASTAL MANAGEMENT WORKSHOP
Synopsis: An examination of Coastal Zone Management throughout Europe with the task of considering and developing viable and sustainable approaches for coastal zone management. (Invitation only). |
| 26 APRIL | MEDIEVAL LIFE IN REPLICA
Synopsis: A one day professional seminar to discuss museum and heritage projects involving replication of domestic interiors in the medieval period and seventeenth century. The papers presented and a summary of the discussions will be published. Venue: Weald & Downland Open Air Museum |
| 26 APRIL | THE CLEANING OF VALUABLE LIMESTONE BUILDINGS
Synopsis: A detailed examination of the range of appropriate techniques and their means of application. The techniques examined will be Timed Mist Spray, Air Abrasion, Steam and Poulticing Techniques. The course is essentially hands-on and is conducted on an ancient building. Venue: Weymouth College |
| 31 MAY | THE LIME PROCESS OF CONSOLIDATION AND REPAIR
Synopsis: The course will examine and practice the 'complete Lime Method' as practised at Wells and Exeter, including the preparation and application of limewater as a consolidant, the formulation and application of mortar as a repair medium and the |



Richard Pailthorpe

The Littlehampton Granary receiving a new thatch from Dave Gabbitts during last season. The first building on the site to be thatched, the granary roof was beginning to show signs of wear from the ravages of squirrels, woodpeckers, rats and the weather.

The Museum's own thatching straw grown in the field next to the building, was used for a long straw thatch of the type many agricultural buildings would have received periodically throughout their lives. Dave was assisted by Albert Peacock, standing with his dog Ben at the foot of the ladder.

- | | |
|-------------------|---|
| 8-12 JULY | formulation and application of shelter coat.
Venue: Weymouth College
SUMMER SCHOOL — MASONRY PRACTICE IN RESTORATION & CONSERVATION TECHNIQUES
Synopsis: This course provides detailed instruction in: Masonry communications and Setting out of masonry features, the techniques of repair involving natural stone and mortar repair, and the execution of a moisture survey and simple salt analysis. The means of desalinating wrought stonework and sculpture. Venue: Weymouth College |
| 7-13
SEPTEMBER | ILAM — INTERNATIONAL SEMINAR — LEISURE MANAGEMENT PRACTICE
Synopsis: This seminar is aimed at delegates with an interest in developing the East European Leisure Industry and supporting infrastructure. It has been designed to provide delegates with the opportunity to benefit from the experience and advice of leisure professionals in the UK. Venue: Bournemouth Polytechnic |
| 2-4
OCTOBER | 3-DAY WORKSHOP ON TIMBER-FRAMED BUILDING CONSERVATION
Synopsis: Delegates will spend three days in the Museum workshops getting 'hands-on' experience of a range of conservation techniques used in historic timber-framed buildings. Venue: Weald & Downland Open Air Museum |

Penny Royal Theatre To Stage Two Seasons At Museum

The Penny Royal Theatre which has staged an August season of professional theatre in repertory at the home of John and Maggie Pollock in Bosham for six years will be moving to the courtyard behind Crawley Hall at the Museum in 1991 and 1992.

The season will open with *Confusions* by Alan Ayckbourn, running from July 23 to August 10. For the following three weeks the company will be staging *The Provok'd Wife* by Sir John Vanbrugh, the famous Restoration comedy in which David Garrick gave a definitive performance.

Confusions was last staged professionally in 1983 and is something of a catch for the Penny Royal. The play consists of five linked or related one-act plays containing some of the playwright's best writing including 'Gosforth's Fete', a brilliant parody on every social and church event held in the open air which we have ever been to in any English summer. There will be a gala performance of *Confusions* organised by the Friends on August 5 when all proceeds will go to the Museum. See the box opposite.

The open air courtyard setting will hold an audience of 382. The acoustics in these stunning surroundings should be excellent. The stage will be between the Museum Shop and the Joiner's Shop and will be demountable at the end of the season. Details of evening and matinee performances will be circulated shortly and advertised in the local press.

One particular feature is that matinee tickets will combine Museum entry with the performance of the play in a package which should provide a delightful day out for the family.

The Penny Royal Theatre has built a considerable reputation as one of the attractions of the holiday season in the South and is delighted to be performing this year at Singleton.

John Pollock

"Open Air Museums have traditionally been popular venues for drama and dance, both traditional and modern. While this will not be the first time that we have hosted dramatic events, it will be the first long-term co-operation. The experimental season will be interesting and will establish a new and useful link. We must always be prepared to diversify into relevant areas of activity, and I think this new attraction will bring out new audiences for the Museum," says Museum Director, Chris Zeuner.

GALA NIGHT!

The Friends of the Museum are holding a Gala Night on Monday August 5 at the Penny Royal Theatre behind Crawley Hall to raise funds for the Museum.

The Museum will be open from 6 p.m. to allow the audience time for a leisurely picnic and stroll around the exterior of the historic buildings before curtain up on Alan Ayckbourn's *Confusions*.

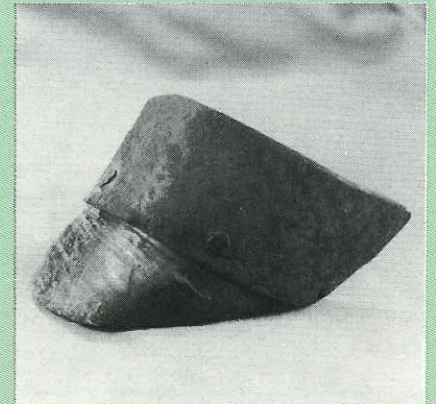
You are welcome to bring your own picnics and drinks or purchase from the theatre's champagne bar. The Friends have made arrangements with Rachel Ellis (of the Museum's caterers) and with Sumptuous Picnic Suppers (Mrs R. Veltom: 0243 263245) to provide picnics specially ordered for the occasion if you wish.

The Friends would like to thank John and Maggie Pollock for their generosity in offering the Gala Evening and to Director Kenneth Parrott and his team of technicians, actors and the author, for waiving their expenses.

Tickets for the Gala Evening will be £12.50, not refundable if the weather is bad. All proceeds will be for the refurbishment of Winkhurst, the 15th century building epitomised in the Museum's logo. The Museum aims to improve the interpretation of Winkhurst, the first building to be re-erected at the Museum, in the light of recent research.

Gala Evening programmes will contain lucky numbers to be drawn during the interval.

From The Collections:



What Is It?

Found amongst the possessions of the late Dick Wilson of East Dean in 1990, this mysterious object has been catalogued into the Museum's collection as number 278/90.

It comprises a cow's or ox's toe horn to which, using three copper rivets, has been attached a 1 1/8" wide steel band. The upper edge of the steel has a worn bevel on the outside, indicating use. The sole of the toe is approximately 4" long by 1 3/4" wide, whereas the maximum length of the object is 5 1/2".

Can you think what this object was used for? It is a typical example of the sort of thing that museum curators are frequently faced with, and to which there often is no obvious logical answer.

The answer to "What Is It?" is given on page 17.

The Natural World Comes to Life at August Craft Fair

Virginia Lyon is planning a Craft Fair with a difference for the August Bank Holiday. This is the first time a special event has been held at this time in the season, and it will hopefully build up the rather depressed August attendance figures.

The Fair will be geared entirely to objects relevant to the theme *The Natural World*. Artists and craftsmen producing work of high quality are being invited, bringing with them their work depicting birds, animals or plants at prices to suit all pockets.

To re-inforce the natural history theme, stands are being invited from the Sussex Wildlife Trust, the RSPB, National Trust, and similar bodies. The Fair will also include demonstrations of country crafts.

Welcome News

The Museum has been commended in the South East England Tourist Board's Warmest Welcome Awards. 1990 was the first year in which the Board has organised these awards which are given across the whole spectrum of tourist provision in the region.

Rosy's Foal

The Museum's Shire Mare, Rosy, is to produce a foal in May of this year. The Sire is Ruskington Edward who stands at stud in Smarden, Kent.

Changes At The Top

Geoffrey Godber, who has been involved with the Museum for many years, retired as President at the end of last year.

Mr Godber is succeeded by Sir James Waddell. Sir James was Chairman of the Friends for many years, and is a valued member of the Executive Board. We welcome his new role as President.

Mr Godber played a crucial role in the early years of the Museum when he was Clerk of West Sussex County Council. Later he became Chairman of the Museum's Council of

Management, and finally President.

The Museum has greatly appreciated Mr Godber's close interest in all the Museum's activities and his commitment to its well-being and future. In all his roles he took a detailed interest on a day to day basis.

We are pleased that he is to remain as a Trustee, and as his home is in Singleton, we look forward to welcoming Past President Godber, and his wife, Norah, for their afternoon walks on site.

Since the *News Update* in September reported a number of changes to the Board, Jimmy Woollings, Mike

Roberts and Derek Bandey in their respective roles as Vice Chairman, Hon. Secretary and Hon. Treasurer, have put in many hours of work and thought on the Museum's behalf. As Museum Director I am probably more aware than most of the amount of effort which goes into these important roles, and would like to express our thanks to them on behalf of all of us involved with the Museum.

We have one new Trustee — Leslie Weller, of Sotheby's, Billingshurst. We hope he will enjoy contributing to the Museum's affairs.

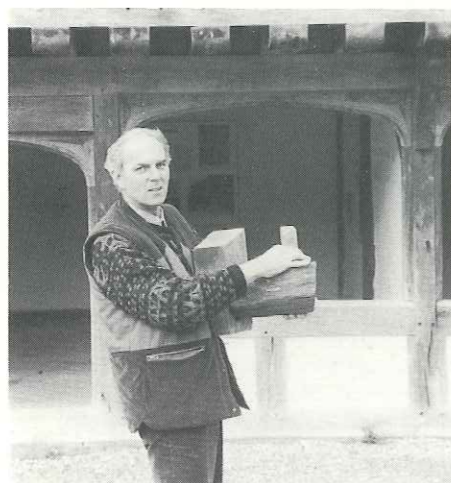
Chris Zeuner

Education Officer Appointed

In November we welcomed Geoff King as the new Education Officer to the Museum and the West Sussex Countryside Studies Trust based at Goodwood. This continues the arrangement for providing a joint service which we have undertaken for some years.

The use of museums by schools has been altering recently as a result of changes in the National Curriculum. These have provided new areas through which museums can service the needs of schools. We hope with Geoff's help to expand the educational activities at the Museum and on the Goodwood Estate taking the National Curriculum needs into account. Geoff is a geography teacher and we are looking forward to the new accent he will be able to bring to the educational provision of both organisations.

From the outset the Museum has seen its work with schools as having a high priority, but it has always been difficult to give attention in any depth to most school visits. This situation is unlikely to



Geoff King getting to grips with a carpenter's joint from the schools' loan service.

change. There is however an opportunity to enlist some more voluntary help in this work. If there are any former or retired teachers who would be interested in assisting us, please contact Geoff at the Museum.

STEADY FLOW OF FLOUR!

Despite poor visitor numbers last year Lurgashall Mill had another very successful season. Even with the 20,000 drop in potential customers, sales of flour, recipe books and our famous Lurgashall Mill cookies remained constant, or actually increased.

Particularly gratifying was the tremendous demand for the new recipe book. Also the Mill has gradually built up a band of wholemeal cooks and bakers who regularly return to us to purchase bulk supplies of stoneground wholemeal flour.

The Mill remains one of the most popular exhibits on the Museum site, where its working machinery, and the associated sights, smells and sound

January saw the departure from the Museum of Clare Nicoll, secretary to the Director for 10 years. Clare has moved to Yorkshire where her husband Paul has taken up the post of Agent to the Castle Howard Estate. We wish them both good luck in the North.



Pat Melhuish.

Clare's place has been taken by Pat Melhuish, who joined the staff in late December. Pat comes to us from Geoffrey Osbourne Ltd of Chichester. Pat lives in Madehurst, and has already become a vital part of the team.

enhance visitors' enjoyment and understanding of what was once a major element of country life.

Repair work carried out during the winter included replacing the outside bearing block which supports the watershaft on which the waterwheel and pit wheel turn. The work was undertaken by Robert Demaus, the Museum's millwright, who also carried out a variety of smaller maintenance and overhaul tasks on the machinery.

The success of the Mill is due in no small way to the enthusiastic efforts of our volunteer mill stewards who operate the mill at weekends. The Museum is very grateful to them all.

Neill Wilkins

SHOEING DOWNLAND OXEN

by Bob Powell

There are many books about the Downs, and several are illustrated with early 1900's photographs of the last working oxen. These are usually on the South Downs in the Brighton area. Some books refer to the oxen being of the Sussex breed of cattle. Others briefly refer to the ages at which the oxen were yoked (2½ years) and then finally sent to the butcher for meat (7 years). Few though give any other information and little is written about shoeing oxen for work.

Most information we have available on this is contained in the famous photograph (Fig. 1) of ox shoeing at Saddlescombe, Sussex, circa 1900. This photograph was first reproduced by Maude Robinson in her book published in 1938 *A South Down Farm In The Sixties (1860's)*.

It was generally accepted that the ox could not be trained to lift its feet for shoeing in the same way that horses could. Therefore, for shoeing the ox had to be thrown or cast to the ground. Ropes were attached to its legs, and then drawn together in such a way that the animal safely fell over. Next the ox had its feet tied to a shoeing tripod which had been placed over it, whilst a boy or assistant sat on the animal's neck to further immobilize it. The blacksmith could then get on with the shoeing. E.V. Lucas in his *Highways and Byways in Sussex (1904)* states that the ox's neck was sometimes held down by a pitchfork, though he does not say exactly how this was achieved.

The ox shoeing tripod was an essential part of the blacksmith's equipment. Esther Meynell in her 1947 book *Sussex* recalls the one at the Pyecombe Smithy (famous for its shepherd's crooks) which lay on the roof beams. There the blacksmith, Mr Mitchell, who then was nearly 100, recounted to Ms Meynell how he had used the tripod to shoe hundreds of oxen.

The shoes were locally known as "kews", "cues", or "queues", supposedly because of their shape. Two were required for each foot. The ox has a cloven foot, and individual shoes allowed the natural independent action of both foot halves. What is unclear is how many of the ox's feet were shod. In some areas only the front feet were shod. M. E. Seebohm in *The Evolution of the English Farm (1927)* refers to 15th Century Haunchford, Surrey, where only the fore feet of oxen for ploughing and those of



Fig 1. The classic photograph: Shoeing an ox at Saddlescombe, Sussex Circa 1900.

heifers for harrowing were shod at a cost of 3d. each. Were all four feet shod on southern Downland oxen? If you carefully study a clear copy of Fig. 1 it would appear that all four feet are shod.

Those shoes shown in Fig. 2 are from eight in the O.A.M.'s collection, made in 1926 by J. Hockham, a blacksmith at Flansham. Are they a set for four feet? Each shoe is 4" long, circa 1½" at the widest, and up to ⅜" thick. Further, two pairs have five nail holes each, and two pairs have four nail holes each. Here other questions arise. If this is a four feet set, do the front feet have just five hole shoes, and the back feet just four hole shoes? Alternatively, does each foot have a five hole shoe on the outside and a four hole shoe on the inside?

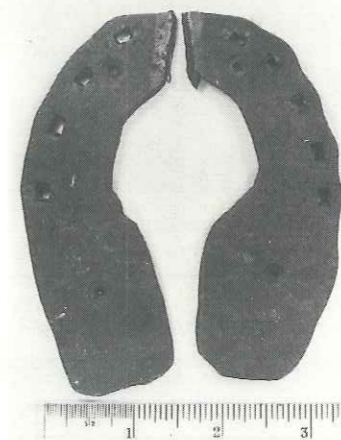


Fig 2. Two of eight ox shoes from the O.A.M.'s collection, made by J. Hockham of Flansham in 1926 (Acc. No. 12/90).

My contact, Mr Frank Dean, aged 74, blacksmith and farrier at Rodmell near Lewes, was unable to help me with the last questions. Mr Dean is one of the last people in England to have shod a bovine animal. In Fig. 3. he is shown in the early 1960's shoeing (horse fashion) a Hereford bull in order to correct a foot problem it had. Mr Dean's main comment was about

the finish of the Museum's shoes. He thought they were not as smoothed or rounded as they should be. Each shoe does have two mounting holes drilled into it, showing that the shoes were once displayed. Since 1926 is quite late for using ox shoes, were they made as a special request, and not finished as they would have been for proper use?

The shoes were attached to the ox's foot by nails specifically made for the purpose. Each was approximately 1¾" long. Unlike a horse shoe nail which has a tapered rectangular section head, the ox shoe nail has a flat T-shaped head, which is turned more to one side than the other. The Rev. W.D. Parish in his *Dictionary of the Sussex Dialect (1985)* described these "queue nails" as being like "miniature walking sticks". The reason for this is that the ox shoe is so thin that a horseshoe type tapered head would be insufficient to securely hold on the shoe.

During shoeing the blacksmith drove the nails through the nail holes in the shoe, and into the thin horn of the ox's foot. The long part of the nail head was faced towards the inside of the foot so as to hold the shoe more securely. Again, because of the thin horn wall of the ox's foot, the nail holes were close to the outside of the shoe, and the long part of the head supported the un-nailed part of the shoe. In her book, Maude Robinson notes that on their farm the blacksmith, Miles Mobsby, always requested a lump of fat pork for a nail pin-cushion. Not only did this hold the nails to be used, but also greased their length, facilitating their passage as they were driven into the foot.

One point confirmed by Arthur Young (1813) in his *General View of the Agriculture of the County of Sussex* is that as a rule only Downland oxen in the South-East were shod. Those in the Weald were not. The reason was that the hard chalky and flinty Downland ground was very unkind to the oxen's feet, and they needed shoes to protect them. On the softer, clayey soils of the Weald the wear on the oxen's

Continued on page 8

Busy Special Events Programme Planned for 1991

Another season of feverish activities is planned for 1991. Following the extremely successful Traditional Food Fair held at the Museum during British Food and Farming Year, another two day Food Fair is being organised in association with *A Taste of Sussex*, to be held over the Easter Weekend.

The Fair is being supported by the Observer Series and West Sussex County Council, and will hopefully provide us with a successful start to the season at this critical time of year.

The Merrydown Wine Company, through their Dorothy Carter Home Preserves, will be sponsoring a preserve-making competition, and there will be an opportunity to enter a Lurgshall Mill Flour baking competition (see enclosed information).

The Sussex Guild of Craftsmen will be holding its annual exhibition over the Spring Bank Holiday and the Novice Sheep Dog Trials will be held on Whitsun Bank Holiday Monday, May 27.

The ever popular Heavy Horses at Singleton and the Show for Rare and Traditional Breeds remain fixtures in the calendar and will take place on June 9 and July 21 respectively. The costs of putting on these events increases annually and we are extremely grateful to those individuals and organisations such as Nationwide/Anglia Building Society, The West Sussex Gazette and SCATS for their

support.

A daily programme of events and activities is planned for August, and this will be circulated during the summer. As part of this programme, the Friends will be holding The Natural World Craft Fair over the August Bank Holiday weekend.

For some time we have realised that September is often a quiet month at the Museum as far as events are concerned. This year, for the first time, an Apple Day will be held on September 29. The event will include displays, demonstrations and sales of apples and apple products. In addition, Brinsbury Agricultural College will be assisting with advice and identification of apples. Friends and members of the public are invited to bring along their own varieties for identification.

The main season's programme concludes with the Steam Threshing and Ploughing over the weekend October 26 and 27. All of these events offer excellent opportunities for the Museum to promote itself, as well as providing interesting days out for visitors. They also offer local businesses useful opportunities for public relations through sponsorship — always needed to ensure a well funded and organised special event. Richard Pailthorpe would be very pleased to hear from any company interested in assisting the Museum in this way.

Wealden Buildings Published

The Wealden Buildings Study Group has published a new book *Wealden Buildings* as a tribute to the late Reg Mason, which brings his research and scholarship up to date.

Mr Mason produced his book *Framed Buildings of the Weald* some 25 years ago. This became the authoritative survey of timber framed building in the South East

of England. The new book assembles further discoveries and research since that date on a wide range of subjects by a variety of authors, and is edited by John Warren.

Enclosed with this Magazine is a special offer to obtain the book at a reduced price.

Shoeing Downland Oxen..... Continued from page 7

feet was less, and they did not in general need shoes. How frequently the oxen needed shoeing is not known. However, Raymond C. Chandler in *Sussex Oxen*, *Sussex Horses* (*Sussex County Magazine*, Vol XIII, 1939) records that Pangdean oxen were "shoed" every three months whether they needed it or not. If a shoe came off before the next shoeing time, the ox had to work on until the next appointed date.

In conclusion, there is a lot that could be learnt about the use of oxen in the South-East. Their shoeing is only one aspect about which we know little. If you have any other information that may be of interest I should be very pleased to hear about it.



Fig 3. Frank Dean, blacksmith at Rodmell near Lewes shoeing a bull in the early 1960s.

The Day of A Thousand Hurdles

How Time and Effort come together for the Museum's largest event

The degree of time, thought and effort which goes on behind the scenes to prepare for a major special event at the Museum is gargantuan. Special events are valuable life-blood to the Museum as a way of expanding visitors' interest on site, attracting new people and renewing acquaintances with regulars. They also bring in much needed extra revenue.

Some have been held for years and to some extent run on automatic. The event which beats them all in terms of organisation, though, is the Show For Rare Breeds, which is now one of the largest rare breed shows in the country. Here is an event which many organisations would be all year preparing, incorporating as it does an enormous complexity of classes, and a wide range of special needs, whether for the huge numbers of animals (some 600 entries) converging on the site, their owners, the visitors and the many hundreds of vehicles.

Planning starts comparatively quietly as soon as the previous show ends — then builds up to a crescendo as the Day Itself approaches. Richard Pailthorpe, who has the unenviable task of making sure everything works, slots in to his life-plan the task of finding sponsors. This is the most costly event the Museum runs — about £3,000 is needed to pay for basic expenses. The marquees alone cost some £2,000.

As the end of July approaches the pace visibly quickens. Virginia Lyon who has offered to assist at these times of great stress, is up to her eyes in numbers of small jobs. The whole outside staff at the Museum is in the field, preparing. Last minute problems occur, frequently, and are dealt with as rapidly as possible. On the Day Itself everyone, but everyone, who is close to the Museum — staff and volunteers — is pressed into service.



Hugo Wood from East Dean tackling the task of tying the hurdles. 1,000 of these are collected in four journeys by John Ruffell from Findon Sheep Fair, Upwaltham Farm and South East Markets (Haywards Heath), and another group of specialist pig hurdles comes from Chertsey.



Visitors are arriving in force. The ubiquitous orange sticks go into the breach once more.



Help — which one! Commentator, Neil Macgregor-Wood, Museum Trustee, receives some advice from Richard Pailthorpe.

Suddenly, it's over. Museum staff and volunteers know the priorities. Carol Hawkins supervising litter collection!



Marquees up and pens numbered, suddenly the day has arrived. Into the tent with the sheep fleeces.



Some people bring their hearth rugs.

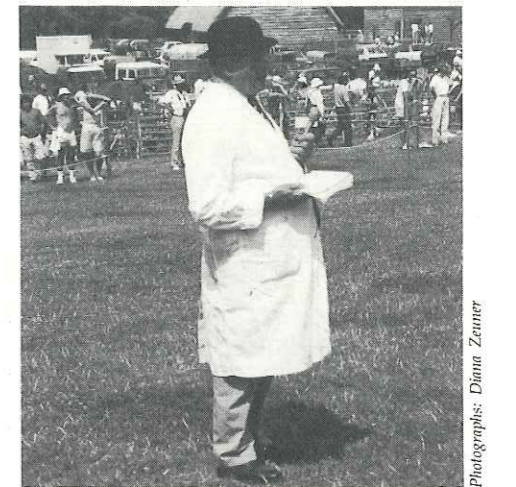


Noses to the grindstone on the visitor admissions desk, a special one pressed into operation for this particular show. Keith Bickmore, centre, has the job of masterminding visitors arrivals. Mike Doran invents a specialist parasol to keep the intense heat from frizzling up the volunteers!

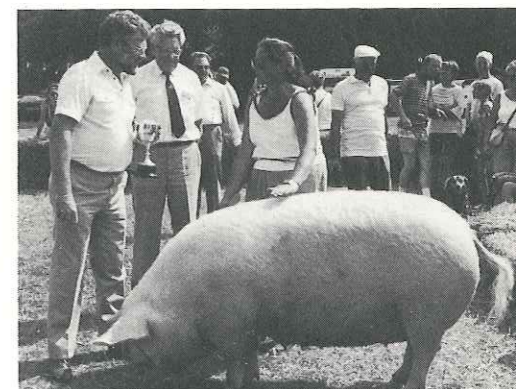
Going already? A Saddleback passes by the billy goat on her way home.



Animals pour out of an extraordinary variety of vehicles. (These Jacob sheep were rather conventional in that respect). Time to meet old friends last seen at a show last month.



Judging is in full swing, and Mr MacLean can be relied on not only to judge, but to interpret too. Visitors find out what he is looking for.



Another winner chosen. Museum Vice Chairman Jimmy Woollings, second left, keeping a watchful eye on the champion pig.

The clearing up goes on for several days. John Chattaway and Babar with the replica medieval cart making short work of the left-over straw.



Photographs: Diana Zeiner

Sole Street Aisled Hall, from the lakeside with the kitchen extension to the rear.
Drawing: Miller Hughes Associates



Sole Street Aisled Hall

New Catering Facility To Open at Easter

Work on Sole Street is well underway and we hope that by May the building will be fully in use as the new catering facility.

Richard Harris wrote in the last news letter:

"This is an exceptionally interesting building in so far as it has preserved its original aisled structure. In the fourteenth century the aisled open hall was probably a widespread form in south-east England, particularly Kent, Essex, Cambridgeshire and Suffolk; in Sussex most examples are single rather than double-aisled. Numerous examples have survived, but in many cases the aisles have been removed and can only be inferred from mortice evidence.

"By a lucky chance the aisles of the Sole Street example remained intact including the heavily sooted arcade posts, arcade plates and braces. In the sixteenth century, however, the service end of the building was replaced with a two-bay cross wing, giving a pair of service

rooms on the ground floor and a two-bay chamber on the first floor. The wing was jettied at the end of the building."

The building has only fragmentary remains but it has been possible to reconstruct the framework with a good degree of certainty. Roger Champion has completed the reconstruction of the hall end; this has been re-erected and the infill and site works are progressing.

Sole Street will provide covered space for visitors to sit after collecting their refreshments from the counter in the converted waggon shed. The interior will be furnished with benches and tables similar to those in the Bayleaf reconstruction. It should provide a very unusual added experience for our visitors. At the same time as the re-erection of the timber frame, we have been constructing an extension to the existing kitchen and two lavatories.

The new kitchen will be open for Easter, closely followed by the hall. The cross wing will be completed as soon as possible. The programme is of course subject to weather conditions. As I write we have discovered that the deep frosts have damaged the daub, and a new start will have to be made, despite the precautions taken to protect the walls.

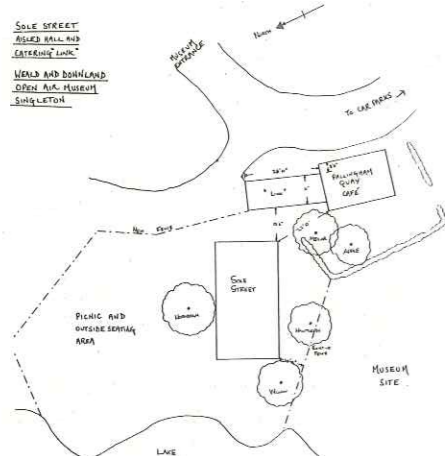
From the beginning of June the complex will be available for special evening functions. It will make a very unusual venue, and the Museum will welcome approaches from outside for its use.

The preparation of plans and technical details for the project was undertaken by Miller Hughes Associates.

Timbers being delivered to the Sole Street site by horse and timber carriage from Charlton, where the building has been repaired.

Plan of the new catering facility.

Diagram: Richard Harris



Photographs: Richard Pailthorpe



Carpenter Roger Champion preparing for the shutters.



Somebody has to do it! Alfie Pilcher makes tile pegs — 15,000 of them.

Dave Gabbittas using hazel from the Museum's coppice to wattle the walls.



New Visions For Independent Museums

Over the last 18 months the Association of Independent Museums (AIM) has been working on a report which looks at future prospects for Museums managed and financed from outside the public sector.

Like the Weald and Downland Museum few independent museums are completely unaided by the public sector, but in our case the level of direct contribution is very low indeed.

The report, published in December, 1990, seeks to cast some light on the problems and opportunities that face our type of Museum. It was written by Victor Middleton in conjunction with a working party of AIM Council members. This short summary illustrates some ideas and implications for the future structure and management of the Weald and Downland Museum.

The evidence strongly suggests that 1990 is a watershed year marking the end of an extraordinary period of growth in the number of independent British museums. In the decade of change to come, a nationwide programme of action will be required to enable the hundreds of recently established museums to create and consolidate new arrangements capable of sustaining themselves into the 21st century. It is a rather less glamorous task than founding a new institution but it is no less creative and even more important for the future of the museums. It seems certain that some institutions will not survive the more competitive conditions ahead.

In estimating projected growth for museum visits by the year 2000 the report identifies the changes and probable impacts of eight major demand influences. These include:

- ★ The growing number of young children and adults in the age groups 15-44 and implications of nearly a million more school children studying the new curricula.
- ★ The importance of changing social attitudes towards museums in all age groups but especially the over 50s.
- ★ The influence of greater disposable income and leisure time, especially the trends to earlier retirement and a more active retired population.
- ★ The demands and expectations of more sophisticated visitors likely to be visiting museums in the year 2000.
- ★ The influence on visits of greater mobility measured in car ownership but with a caveat on the probable effects of traffic congestion on museum visiting.

The report notes an adverse economic climate for most museums in 1991-1993 although the longer term climate appears very positive.

In particular the recommendations

take into account that the great majority of independent museums are very small operations indeed. Six out of ten have less than 5000 visits per annum and are run mostly by volunteers. Four out of ten are, in effect, small businesses struggling annually to generate sufficient revenue to ensure survival with very limited management capabilities.

The recommendations are:

- ★ For AIM to develop awareness of the meaning and relevance of a *management focus* to change or modify attitudes among trustees, directors and museum staff. Without a programme to shift current attitudes most of the other recommendations will not receive the necessary priority.
- ★ Improve corporate planning procedures for museums, building on initiatives which in many museums are still in their very early stages of development.
- ★ Analyse museum assets systematically — buildings, space, collections and staff expertise to identify new sources of potential revenue. Most museums are currently grossly under-utilised in terms of daily earning capacity over 12 months.
- ★ Develop new user groups to supplement and complement the existing use by admission paying visits from the general public.
- ★ Seek commercial and other partnerships. Possible revenue contributing linkages based on museums strengths are noted with locally based businesses, developers, and public sector organisations such as hospitals and libraries.
- ★ Gain access to and utilise new information technology systems for management purposes.
- ★ Develop more cost effective marketing methods in collaboration with other museums and related organisations, to target and achieve essential revenue targets.
- ★ Develop management services consortia. Recognising that many independent museums are just too small to survive the next decade as independent businesses on a stand alone basis, the report recommends the development of museums management consortia to provide and share the cost of essential but expensive management expertise and systems — from marketing to computer software.

The recommendations are to be developed in the next 12 months through AIM Seminars and workshops.

Having been involved with the dismantling and re-erection of buildings for most of my working life, I am well aware that many people are opposed to it as a matter of principle. So I must state very clearly right at that start that I would *always* prefer to see a timber-framed building — indeed, any historic building — retained and conserved on its own site rather than dismantled and moved, and I believe strongly that the only proper attitude to dismantling for re-erection is that it should be treated in all planning and negotiation as if it were a proposal for total demolition. A re-erected building is *not* the original building, but a re-creation of it using as much as possible of the original historic fabric.

However, I must also state equally clearly that if all else fails, as it still does from time to time, and a building simply must be demolished for some over-riding reason, then I would rather see that building *properly* dismantled and re-erected elsewhere. I will explain later what I think is involved in 'proper' dismantling, but the basic principle is that it provides a unique *opportunity* — an opportunity to investigate and come to a full understanding of a building, completely different from the normal processes of *in situ* investigation and recording. If we take advantage of this opportunity, the knowledge thereby gained goes some way to mitigate the loss of the building itself. I have heard an SPAB witness state at the Public Enquiry that he would rather see the building in question — a medieval timber-framed building — burnt than dismantled and re-erected, and I completely reject this view. It is extraordinary that other historic artifacts, such as paintings, clothing and furniture, are considered still to have interest and validity even when removed from their original context, yet buildings are not.

Justified

From one point of view, however, the anti-dismantling attitude, which has been particularly a feature of SPAB policy, has been entirely justified. It was argued that, while a particular case might be worth considering on its merits, SPAB support would represent a foot in the door and that the door, once open, would admit an avalanche of cases. Avalanche is too strong a word, but there is no doubt in my mind that the Open Air Museums and related projects have indeed opened a dangerously wide gap in the defence of historic buildings. When the question of dismantling and re-erection comes up, there are two things that should be said: first, that is not a valid means of preserving a building — a re-erected building is a vehicle for the preservation and display of components, but it is not the original building; and second, that if it must be done, then it should be treated as destructive archaeology, and all available skill and experience should be brought in. All too often a building is

dismantled by people for whom it is their first and only experience of the process, and the result is a tragic wasted opportunity.

So this, I think, is the first and chief problem in the dismantling and re-erection of timber-framed buildings: the problem of seeing clearly the proper occasion for it, and of being realistic about the nature of the end result. Turning now to the process itself, there is no doubt in my mind as to what has been the main problem in the past. Timber-framed buildings are *fascinating*, and as a result many of them have been dismantled to "save" the frame with almost no regard to the rest of the building fabric. Original features, such as wattle and daub panels, floor boards, cladding boards and so on may have been given cursory attention but later features such as inserted chimneys and replacement staircases, doors and windows have tended to be discarded with hardly a photograph, let alone any proper record. My own institution, the Weald and Downland Open Air Museum, was guilty of this in the early days — a brick chimney inserted into Bayleaf Farmhouse in the 17th century was destroyed with only a few photographs to record its existence — but it was by no means alone, and I have heard of similar instances happening elsewhere very recently. An ironical result of this tendency to focus on the frame to the exclusion of all else is that careful drawings are produced of the frame — which survives, and therefore is itself its own best record — while no drawings or records are made of the rest of the fabric — which is destroyed without trace. Our policy at the Museum, which I will describe in more detail in a moment, is to do exactly the opposite: almost all the time during dismantling is taken with recording things which are *destroyed* during dismantling: some of them are material things which cannot normally be removed intact, such as plain plaster surfaces, but much effort also goes into recording the assembly and disposition of components — the details of the way timbers, mouldings, bricks, stones, boards and even laths went together in the building as found. Only later do we turn our attention to analysing the frame in detail.

Exciting

Although it is easy to state, this policy is not particularly easy to follow. It is more exciting to find the position of an original medieval window, for instance, than to get to grips with the details of the way a hall-house was converted into cottages in the 19th century. If storage

Dismantling and Re-erection of Timber-Framed Buildings: Problems and Opportunities

by Richard Harris

This paper was given at the ICOMOS UK Seminar on *Understanding Timber Framed Buildings*. Papers from the Seminar are available in full at £16 inc p&p, from Jane Fawcett, ICOMOS UK, 10 Barley Mow Passage, Chiswick, London W4 4PH.

space is at a premium, as it usually is, then it is often hard to make a case for holding on to inserted and replacement components, such as nineteenth-century doors and windows. However, the policy we follow as far as possible is that *no decision about the form of the re-erection should be taken before the dismantling is complete* — in other words, analyse, interpret and record everything, and keep or sample as much as possible; so that if, finally, it become obvious that the incorporation of later phases in the reconstruction would benefit the presentation of the building — or if, indeed, a later generation of curators should so decide — then these options have not been closed by failure to record and preserve the relevant material during dismantling.

Method

Now I want to describe some of the policies and procedures that we use in dismantling projects at the Weald and Downland Open Air Museum. Of course, to some extent every job is different: the character, position, historical development and complexity of a building will determine much of the process of dismantling. However, I think it is possible to map out a series of steps common to most dismantling projects, and this may perhaps be a step on the way to formulating a Code of Practice which would help to limit the number of errors made by inexperienced practitioners.

Three phases of a dismantling can be distinguished: the initial survey and investigation, then the dismantling, and

finally the post-dismantling phase of analysis and publication.

Our team is led by three people. Overall supervision is in the hands of the Site Director, who takes responsibility for archaeological analysis of the structure and all recording. The dismantling Team Leader is responsible for the people who actually take the building apart, and their plant and equipment; and the third person is the Curator, who takes charge of numbering components and labelling and storing finds. Needless to say, this leadership team has to work closely together. Obviously other organisations in different circumstances will assemble different teams, but this way of doing it has certainly worked well for us.

Usually the first thing to do, of course, is to clear out rubbish and make the site and building secure. After that, the Site Director and Curator should have the site pretty well to themselves for the initial survey phase. The Site Director will set up levels, lines and reference points and do sufficient investigation of the structure to establish the broad outlines of the interpretation, at least, and identify areas that are likely to present problems. A preliminary set of drawings will be produced to provide a hook on which to hang later material. As much survey work as possible should be done before dismantling commences, and sometimes whole areas can be surveyed in detail at this stage; for instance, internal and external wall elevations can be produced at a large scale, but very often these will only be the first of a series of drawings made during dismantling as, for instance, plaster or inserted features are removed. This is also the time to take a set of photographs showing every part of the building as it was before the commencement of dismantling.

Investigation

In our team, the Curator will at this stage be carrying out investigation and initial sampling of whatever materials, chiefly plaster, are not going to be removed intact. There will be much more sampling to be done later, during the dismantling, but this is an opportunity to

ensure complete coverage of *all* superficial materials. No plaster surface is left unsampled. Plaster sampling has to be an intelligent process, of course: there must be an initial check for painted or decorative finishes that will need to be recorded or removed intact, and the sampling will form part of the preliminary structural investigation being carried out by the Site Director. The Curator can start some of the numbering and labelling at this stage. This is also the time to

investigate some of the more detailed components that will help build up an interpretation: for instance, doors should be examined and scheduled, and a screw should be taken from each hinge to help establish a preliminary chronology of ironmongery. If there are valuable items that can be removed completely, such as fireplaces or fitted cupboards, that also should be done at this stage — in other words, do as much as possible *before* the start of the second stage, the dismantling proper.

The reason for this is, of course, that during the dismantling the pressures and difficulties increase dramatically. The Curator and Site Director will be fully involved keeping up with the work as it progresses, investigating the next layer, recording the latest finds, and numbering newly exposed components. Obviously this second stage varies greatly from building to building, but the over-riding principle is always maintained: that is, that the objects of the exercise are, first, to maximise understanding of the building; second to record sufficient information to rebuild it accurately; and third to extract a maximum amount of historic material, both to use in the rebuilding and to retain for later analysis and reference.

Experience

The easiest part of the dismantling, physically, is the timber frame itself. Skill and experience is needed, of course — for instance, knowing the best ways to unpeg various joints, and being able to plan and execute safe handling systems for heavy timbers — but a frame *is*, essentially, a kit of parts and usually the frame comes to bits with little trouble. But this raises the same issue as I mentioned earlier, that a good deal of self-discipline is required to resist the temptation to rush or skimp on the rest of the job in order to get on with the frame. How tempting to tear up all those floor boards quickly, to expose the lovely old joists beneath! Yet in doing so a wealth of information is thrown away — the nails. A house will typically have floorboards which have been replaced or moved

around several times in its life, but by sampling the nails and the boards systematically it is possible to analyse these changes, and sometimes this will throw light also on changes which have been made to the joists below.

Sampling of nails from all nailed components, including plaster laths, is now a standard part of our procedure and has yielded considerable benefits. It is not particularly time-consuming or expensive but it requires organisation and discipline and an understanding by the whole team of the overall objectives.

Although, as I have said, the frame usually comes apart fairly easily, there are some basic rules which have to be followed. The main one is that no timber, however rotten or apparently unusable, is ever left behind: if it has to be replaced in the reconstruction then the original will be a better template for the carpenter than any number of drawings. The Open Air Museum made the mistake, in several of its early projects, of abandoning timbers which were thought too rotten to re-use, and we have been regretting it ever since.

Question

Overall, my experience with dismantling has been that if you ask the question *How can we take things apart more delicately, store them more carefully or record them more fully*, the answer is usually not only surprisingly simple but also surprisingly cheap. With dismantled timbers, for instance, we wrap for protection any timber with a finish, such as painting or sooting, that we want to preserve, using taped-on plastic bubble-wrap. With brick chimneys, for example, we now routinely draw in plan every course as it comes down; and with facing brick and stone we number every individual brick or piece of stone. We have been quite surprised to find that these techniques, which are certainly labour-intensive, can be used without the overall job becoming unduly lengthy or costly.

The main problem, for which we have not yet found a satisfactory answer, is wattle and daub panels. While it is possible to extract an intact wattle and daub panel from a frame, we have found it fraught with practical difficulties, and reluctantly have conceded that unless panels have sooting or decoration, then a sampling policy has to be followed: sampling, that is, a selection of complete panels, and smaller samples from every panel; also, every panel is photographed complete, then the underlying wattlework is exposed and photographed before being removed.

The third and final stage of the dismantling of a timber-framed building is the one which, for me, is the most important and productive: analysis of the timbers. The method is quite simple: all the timbers are laid out or stacked in a large covered space, and every one is examined and drawn. The drawings are to a large scale — I use the extremely delightful old-fashioned scale of 1:16, 3/4"

Continued on page 14

Dismantling Timber-framed Buildings..... *Cont. from page 13*

to a foot, with larger-scale details, but any scale between 1:10 and 1:20 or 1:24 will do perfectly well. The main timbers — wall-plates, tiebeams and so on — are drawn showing all four surfaces in elevation, while for minor timbers one or two views will suffice. Some features will be traced by rubbings, and others will also be photographed, but the drawing is the prime record. Sometimes repetitive timbers such as floor joists can be scheduled rather than drawn, or only drawn selectively.

This process of drawing the timbers is time-consuming but produces three results. The first is that, for me at least, the processes of observation and drawing are inextricably interlinked. Some people may be able to examine timbers without drawing them and reliably observe every feature, but I cannot. Drawing every inch is a discipline which ensures that I examine every inch. The second result is that the drawings themselves, drawn to scale but also containing notes, draft interpretative conclusions on tricky features, and figured dimensions, become an invaluable archive, recording both the condition of the timbers prior to repair and the interpretative reasoning behind the final reconstruction. And the third result is that thanks to the modern miracles of reprographic processes, the drawings can be Xeroxed to any required scale and traced directly to produce final drawings of the frames for the archives, for the workshop, or for publication.

Emphasise

What I want to emphasise particularly is that it has been through this process of drawing the timbers that I have managed to achieve a gradual deepening of my understanding of traditional carpentry. The results can be applied to surveys of standing buildings, but the progress has been made through examining dismantled timbers; so now to conclude this talk I want to mention some of the areas of improved understanding that have resulted.

One of the things I always investigate and record in my examination of each timber is the presence of tool marks on the surfaces, and the way the timber was converted from the original tree. As far as tool marks are concerned, surfaces either show saw marks, or the marks of an axe or occasionally perhaps an adze. The presence of waney edge is easily noted, and then it is a fairly easy matter, even if end grain is not directly visible, to deduce how the timber was taken from the log. I also look for — and very often find — instances of timbers from the same log being used close together, or in closely related positions, in the building.

One of the resulting benefits is that it becomes much easier to distinguish inserted timbers from original ones, and re-used timbers from fresh ones, so that the interpretation of the frame becomes more secure. On more than one occasion I have been able to sort out two, three or even four overlying sets of mortices and

marks from successive uses of a particular timber, and the basis for this is the recognition of the consistent patterns produced by each individual carpenter.

A mass of data is thus accumulating, much of which has not yet been digested. When, finally, it can be put together I think we will be able to identify chronological and regional variations in carpentry practice which are much more subtle than what is already known; and this, of course, will contribute to the end result to which all this work is ultimately directed — that is, the understanding of traditional carpentry as part of our heritage of material culture and the use of this as evidence in historical study.

Slices

Dendrochronology — the science (or art) of dating timbers by the analysis of the growth patterns of the annual rings — depends on the use of slices or cores on which the rings can be measured. Slices are best, and it is quite often possible to obtain a slice from a dismantled timber which would be very difficult in the standing building. For instance, we have taken slices — thin ones, only a few millimetres thick — from the overhanging ends of wall plates, then glued the original end back on: the result is virtually undetectable and does minimal damage to the building. Cores, too, are somewhat easier to obtain from timbers while they are dismantled, and it is easier to take them from positions where the resulting small hole — which in any case can be made virtually invisible — is in a hidden position when the building is re-erected. Working with Ian Tyers at the Museum of London we are following a programme of dendrochronology for dating purposes, but are also keen to use dendrochronology to answer another series of questions about the timbers: that is, if we core every timber in a building and analyse the resulting ring sequences against each other, can we identify different patterns of woodland management in, say, the rafters as opposed to the wall studs; can we draw some conclusion about the typical ages of tress chosen for particular timbers; and can we even infer how many different areas of woodland a carpenter would go to obtain all the timbers he needed.

In measuring frames *in situ* the usual method is to measure from timber to timber, but when measuring the timbers themselves you have to measure to mortice edges, and indeed sometimes also to the original setting-out marks used by the carpenter. These three things may well not coincide: mortices are often dug slightly away from the setting-out mark, and timbers are often slightly narrower than the mortices they occupy. Of these, the setting-out marks clearly reflect most closely the original intentions of the carpenter, so measurements from dismantled timbers can provide insights into traditional processes of setting-out that cannot be studied properly in

standing buildings. In particular, roof pitch — expressed as a ratio between rafter length and span — is almost impossible to measure accurately in standing buildings but is quite easy to ascertain from dismantled timbers. There is not time to go into detail here, but my research suggests that the change from crown-post to side-purlin roofs in Sussex in the mid- to late-sixteenth century may have gone hand-in-hand with a change in the method of setting out roofs and in the proportions used. More work is needed on this, but it is clearly one of those areas of investigation that could prove very fruitful, but which has not been investigated because getting data is very hard except in the special circumstances of dismantled timbers.

Another intriguing issue connected with setting-out the frame is that there appear to have been two systems in use — one using centre lines on the timbers, and the other using the faces of the timbers as reference planes. This can also be studied in standing buildings, of course, but dismantled timbers give greater opportunities for detailed observations. As a very general suggestion, it appears that centreline carpentry may be associated with the 'eastern' school, of close-studding and crown post roofs, whereas faced-up carpentry may be part of the cruck-dominated 'western' school, but so far we have little data to go on.

Observations

Another aspect of traditional framing methods which has come to light in the last two or three years, first through the efforts of Jack Sobon in the USA and then through observations in this country by Peter McCurdy and myself, is the question of the so-called 'scribe rule' and 'square rule' systems. Again, I regret that time does not allow me to examine this in detail today, but the basis of it is that scribe-rule carpentry, which seems to have been used exclusively by British carpenters, involves certain techniques of scribing accurate, square and level jointed frames from timbers which were neither straight nor square. Some of these techniques left marks on the timbers which can still be seen, and from these we are gradually building up a picture of the sequences and processes of traditional framing, but some of the evidence is *only* visible in dismantled timbers. For instance, it puzzled me for years that the depth of the tie-beam lap dovetail seemed to vary slightly from truss to truss, when I could measure it accurately in dismantled timbers, and it now appears that the dovetail lap was used as a levelling device — the wall plate may undulate slightly, and the dovetail laps ensured that all the tie beams, and therefore their roof trusses, would stand level from side to side. Another example is that the shoulders of tenons were commonly scribed, using the system of cutting them short, inserting in the mortice, scribing the true shoulder and

THE SHOP — A HIVE OF ACTIVITY WITHIN THE MUSEUM

Monica Hannevold reflects on its early days and describes its work

The Museum's Shop started in a very small way at the beginning of the last decade in the tiny Toll House, selling black-and-white prints of the two or three buildings and, later, postcards. Money was urgently needed. John Lowe (then Director), Doug Bryant, his wife Marjorie, Daphne Chandler, Joan Brooks, Ethel Buyver and many others were involved. A few years later the shop moved to the Littlehampton Granary and gradually new items for sale were added: a guide book, a teacher's guide, pens, pencils, leather coasters and bookmarks, cut-out models of the houses and corn dollies. Later still, herbs were ordered from West Dean Gardens for sale; they still sell well. Business thrived, the premises "shrank". Another move was necessary and the shop moved to its present home — the 17th Century building from Lavant.

Keith Bickmore took over the day to day running of the shop in 1983. He has continued the work of the pioneers and worked with energy and enthusiasm to develop its scope with the Museum's retailing policy. He is assisted by three Shop Supervisors who work two or three days each a week: Ann Kirby, Betty Putnam and Monica Hannevold. They are supported by a devoted band of volunteers. The official opening time is 11.00 a.m. but the door is usually open well before that as the Supervisor will have arrived an hour or more earlier to prepare for the day. Volunteers come in time to help stock up before the opening.

Who and what are our customers? They are many and varied and of all ages from 0 to 90. They include families, both British and foreign, coach groups, of OAPs, Guides and Scouts, specialised

societies of many kinds, college students and school parties. These last are our "bread and butter" customers pouring in, as they do, with their pound coins or even £5 notes that simply MUST be spent.

What is the function of the shop? Basically it is to make a good return on goods selected for sale to provide funds



The shop in action during the winter.

for the Museum's work. At the same time we aim to give value for money and to tread the difficult line between selling souvenirs and educational items. Last year's profits represented a major contribution to the Museum's income. In addition we represent the "visible face of management" to the public. Consequently we receive all manner of requests, compliments and (very occasionally) complaints. Advice on visits, questions about specialised books, information about buildings, how to join the Friends of the Museum, requests by phone or in person for education material, enquiries about lost property, even lost children ... We prepare books and educational material for despatch by the office and administer simple First Aid when necessary. In between whiles, we sell!

What do we sell? From those early days of two or three items we now have approaching 100 different types of goods, ranging from the literary and educational material, postcards, greetings cards, notebooks and cut-out models to food products, including the wholemeal stone-ground flour from our own mill, honey, marmalade, chutney and apple-juice:

from tea-towels, aprons, shopping bags, candles, besoms, baskets, mugs — to the "small goods" counter where the modestly priced articles for children are displayed. Bernard Rush and his helpers continue the admirable work preparing horse shoes for sale. A recent addition is the replica pewter range in "The Bayleaf Farmhouse" collection. Perhaps the most

important side of our trade for the serious student is the particularly comprehensive collection of specialised books on all aspects of venacular building of the period covered by the Museum's exhibits (14th century to 19th century), and rural life. Visitors are understandably impressed by the variety and quality of the books on offer.

The long day is drawing to a close. Weary but happy visitors have left us with a kindly "What a beautiful interesting place this Museum is!" "Aren't you lucky working here!" "Thank you VERY much. We HAVE enjoyed it!" The last school child has been hustled back into the coach by a harassed teacher's strident "Hurry up, hurry up, we've GOT to get back to the coach." The last OAP has departed with his/her bag of goodies for the grandchildren. The last bibliophile (who has spent half an hour reading the books and is still there 10 minutes after closing time) disappears at last without having bought even a postcard. The door is finally locked and we are left to clear up from the day and balance the takings. Another day over. It has been fun — but — oh! — my poor feet.

Dismantling Timber-framed Buildings..... *Cont. from page 14*

re-cutting; the re-cutting often leaves a mark on the tenon which can be seen when the joint is disassembled.

Finally I must refer to the work initiated by Timothy Easton in Suffolk. What he has found is that many timbers have inscribed upon them strange marks which he believes — and I am sure he is right — were intended to give magical or ritualistic protection of some kind to the building. They are often faint, and so roughly made that individually they can be dismissed as timber-doodles made by

idle hands on a hot day; what Timothy Easton has done is bring many examples together to show that they share common patterns. Following his lead, we have found examples of these marks on some of our buildings at Singleton.

Mentioning these marks brings me to my final point. The examples I have just mentioned, and many others I have omitted, show that timbers — the original timbers, not replacements — have far more information embedded in them than we suspected twenty or even ten

years ago. This emphasises the over-riding need for *conservative* repair of timber-framed buildings. I have come to believe that where a choice has to be made, it is more important to keep the original timbers than to restore the frame to full structural integrity. This is an issue that everyone involved with the conservation and repair of timber-framed buildings has to confront. In these sad days of heritage humbug, what we need — for enjoyment as well as research — is the real thing, not a replica.

A 3000 YEAR OLD BUILDING TECHNIQUE: ITS DISCOVERY AND CONSERVATION

Dr Archie Walls:
The Conservation Practice,
Midhurst

One of Britain's hidden exports over the last two or three decades has been its expertise in the conservation and restoration of archaeological and architectural remains. The Conservation Practice, who are part-sponsors of this year's Museum magazine, plays its own part in this "trade" through its links with international organisations and academic institutions in various parts of the world. Although the current workload of the Practice is primarily UK-based (including Uppark House, Dover Castle, St Pancras Station), the Partners and senior staff have broad international experience and considerable personal contacts with national Governments and development agencies overseas, and the Practice is presently following up prospects in Malta, Cambodia, East Germany, Pakistan, Hong Kong and Singapore.

Often the knowledge gained from this export "trade" in one country is applicable to problems found in another. A solution to the problem may sometimes only be arrived at by bringing together apparently dis-similar evidence from a wide geographical area. The layered construction found throughout the deserts of Arabia is one such case. For over a period of fifteen years I gained a gradual understanding of its advantages, distribution and history in buildings as far apart as north west Iraq, Oman and North and South Yemen.

The type of construction under discussion here consists of horizontal layers each of which is plastered over before the next layer is added. The technique has inherent benefits in terms of the resultant strength of construction. This is partly because each layer has time to cure and strengthen, but also because the layering overcomes disadvantages encountered in some mud-brick structures as it confines any damage caused by defective workmanship, erosion or even cannon fire. However, it is general practice to incorporate horizontal timbers which can bridge any weak areas.

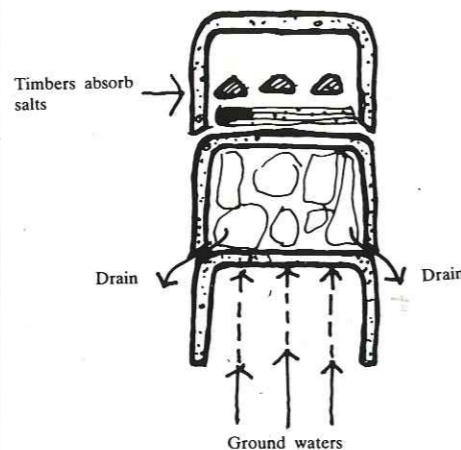


Fig 1.

Various combinations of materials have been used, from mud-brick with mud mortars and renders to stone with hard mortars and renders. The age of a structure apparently has little bearing on the combination chosen, for the earliest example known was built nearly three thousand years ago, and is also the most sophisticated.

The first and most basic of the combinations consists of hand modelled or box moulded sun-dried earth bricks, mud mortars and a mud plaster render taken over three brick courses. In the second,

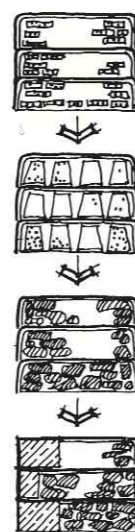


Fig 2.

tall, truncated, conical mud bricks are substituted for the earlier three brick courses, as seen in the great fortresses of Bahal and Samad in Oman. In the third combination a change is made from mud brick to stone with clay or lime mortars, covered by a gypsum-based render. The earliest example of this is the eighth century Ummayyid castle of Qasr Kharanah in Jordan, which lies just within the desert. Another northern example of this combination is on an island on the Euphrates in Iraq. It was discovered when the sun's rays at sunrise fell on the side of a fifty year old house and caught lines of salt crystals which glistened like jewels along the joints between the layers. This same

combination can be found in Yemen, Oman, the UAE and in Bahrain. The fourth and most developed combination, which has already been referred to, consists of well-cut ashlar stone blocks, each backed by layers of two or three courses of un-cut stones.

Despite these changes of material and country the height of the layers remains constant, it equals the length of a man's forearm, and so allows the layers to be built from above without scaffolding.

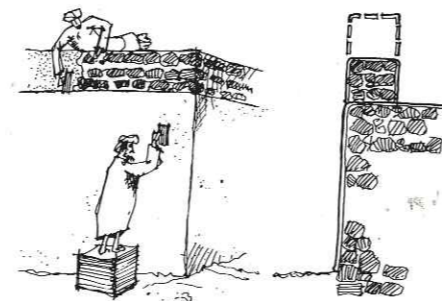


Fig 3.

The Process of Decay

It was in 1977 at Bahla, Oman where round brick walls rise to over twenty metres, when the problem of how to consolidate layered structures was contemplated, and recommendations made in a report to UNESCO. In the event the recommendations were not acted upon and Bahla was left to collapse gracefully and gradually into a pile of earth. It was not until 1984 at Arad Fort, Bahrain, that time and resources were committed to enable experimentation to find a way of conserving this layered technique.

At Arad nearly all of the structural problems could be traced to the destructive crystallisation processes caused when the salt-carrying ground waters evaporate. In the illustration, the first section illustrates the original well maintained structure with its wall walk and shielded firing points which look like noses. The numbers indicate the natural processes which bring about decay; ground waters rising in the wall fabric and the heavy daily condensation at the wall walk: (1) ground level; (2) the zone where the salt ground water rises by capillary action into the masonry above ground level; (3) the zone of wet and critical moisture content where constant evaporation takes place from the surfaces and where there is sufficient water within the centre of the wall to immediately compensate for the loss by evaporation; (4) in the evaporation zone there is not sufficient water at the centre of the wall to compensate for any loss by evaporation, consequently salts crystallise on the

surface. Further evaporation increases the concentration of soluble salts, which in turn attract more salt-carrying ground waters, which leave behind greater and greater quantities of salt. It is therefore most important to maintain the render in order to reduce the attack on the masonry; (5) a zone of dry masonry; (6) heavy condensation on the wall walk reacts with salts naturally present within the building materials, and crystallisation takes place which leads to decay. On the few occasions in a year when it rains, there is so much water that it runs over the wall's edge and so is not a problem.

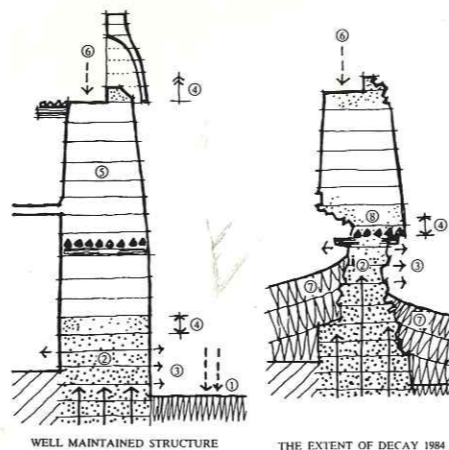


Fig 4.

Over the centuries this process was exacerbated by the accumulation of wind-blown sand against the walls, which caused the zones of wet and critical moisture and evaporation to rise. In 1984, upon excavating these sands, decayed wall sections of four metres height were exposed, and in one wall its original thickness of over two metres had been reduced through decay to thirty centimetres. The height at which the damage stopped coincided with horizontal palm poles built into the wall, being fibrous they absorb more water than the surrounding masonry, and once exposed to the air they offer a large surface area to the crystallising salts, which delays the corrosive process.

The Method of Conservation

In 1980, a report on the structural condition had been presented to the Government of Bahrain which dismissed any restoration using traditional materials on two grounds. Firstly the difficulty of obtaining them and their subsequent 'high' cost, and secondly the use of a lime mortar was "dubious" because of its long setting time and because it needs to be laid in small sections! The report concluded that the most economical solution would be shuttered and pumped concrete, see illustration "The Recommended Method 1980". In 1983, another report recommended sprayed concrete ("Gunite") and steel anchors, since it was "judged to be the only system now safe enough to be used." Had this method been implemented, time would have proved it a false economy. Being impervious, the concrete (number 7 in illustration) would have prevented evaporation of the salt-laden ground waters. Consequently they would only be able to evaporate from the previously undamaged layers.

These proposals are the antithesis of the methods and thinking adopted in 1984, and in spite of the structure's increased instability, a solution to the problem using compatible materials was sought. It had to be simple and elegant. It was essential that the evaporation processes could continue unhindered, and, in the long run perhaps, there might even be a reduction in the height of the zone of critical water content.

Samples of the existing mortars were taken for chemical analysis, as were samples of locally produced gypsum and lime. Unfortunately, neither of the traditionally made samples was found to be the material used in the original construction of the fort, although the analyses were useful in that they established the fact that Arad Fort was constructed using lime-gypsum mortars. After a year and a half of experimentation, a suitable mortar for the rebuilding was devised. We had tried different sands, and the sand excavated from the interior of the fort was found to

have the best colour. We reused the stones recovered in our excavations supplementing them with others taken from old buildings demolished to make way for new roads. Hydrated lime was

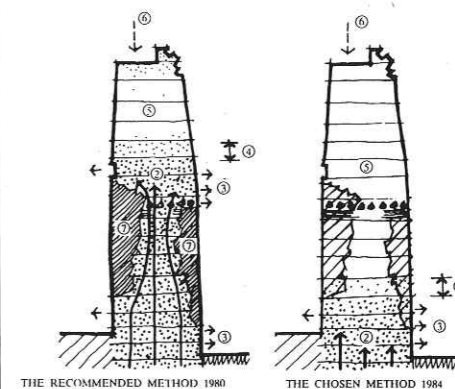


Fig 5.

bought locally, gypsum came from Saudi Arabia, from central Bahrain came clay which was burnt on site and used to give colour to the plasters, and lastly, palm trunks were brought from various parts of the island and used as structural timbers, or if unsuitable for that purpose used as fuel when burning clay.

Rebuilding was reasonably easy, for having identified the original layers, the building sequence flowed naturally as shown in the illustration "The Chosen Method 1984". It also guaranteed that future erosion would occur on the new surfaces, not the historic fabric.

The knowledge gained from putting the pieces of the jigsaw together over so many years, and from spending three years experimenting and building using this technique can now be applied with confidence to so many monuments which are in need of attention, not least in the present war zone.

What Is It: The Answer

When I catalogued this item in September 1990, I had no idea of its purpose, and the object was duly recorded as an "Ox Toe". Then in November 1990, whilst on leave at home in the Cambridgeshire Fens, the answer was given to me purely by chance.

I had been talking to an old farmer friend, Andrew Green of Benwick, aged 88, about the intricacies of killing the family pig and the subsequent salting of the pork in the period 1919-1920. In due course we got to the part where the newly killed pig's bristles had to be removed first by scalding with very hot

water; then by scraping. Here, Andrew recalled being instructed by the village butcher who did the slaughtering to grab a "Cow's Toe" and to start scraping. Prompted by an excited reaction from me, Andrew then went on to exactly describe the mystery object here in the Museum.

Cow's toes were easily obtainable for village butchers, who often did their own slaughtering. Converted into a scraper with the attached metal blade, the toe part handle comfortably fitted into the user's hand, as the metal was used to remove the bristles loosened in the pig's

skin by the scalding. Using the materials readily available to him, it was the country butcher's simple and effective solution to a task that was often otherwise done by using the base edge of an old candlestick.

To my knowledge this information has not been recorded before. It is unlikely because of the nature of the material that few, if any, other scrapers survive. Even more improbable is the chance that one should crop up as a topic for conversation with the person responsible for the care and identification of the Museum's example!

Bob Powell

West Sussex Imperial Standards Loaned To Museum

One of the latest acquisitions by the Museum is the old West Sussex Imperial Standard Weight and Measures. They have come to the Museum on long term loan from West Sussex County Council's Trading Standards Department.

In the collection of Standards there are about 85 items. These include balances and scales; weights of different metals, shapes and sizes up to 56lbs; standard measures of length; standard measures of volume; and branding irons and stencils for marking approved measures such as beer glasses or farm bushel measures.

Many of the items are also inscribed not only with the maker's name, but also with the date they were made and where they were used. For example, a set of brass weights made by De Grave of

London, and inscribed *West Sussex 1897*.

Now that metric standards are in regular use the old imperial ones are no longer required. They were taking up space urgently needed for office accommodation. The Trading Standards Department did not wish to either dispose of or disperse the fascinating collection. Consequently they were offered to the Museum where they could remain as one collection, and ultimately form the core of a new display. It is hoped that they can be shown alongside their everyday equivalents from the Museum's collection, and further related to the lives of the people who worked in some of the Museum's building such as the Mill and Market Hall.

Bob Powell

CHARCOAL DUST—Nothing Wasted

The increased production of charcoal by Alan Waters, aided by the long dry summer, has enabled us to explore other markets for the smaller grade charcoal not suitable for barbecue use. The larger grade particles or 'chip' charcoal is sold to the gun making industry for 'blueing' barrels.

The next grade size down, measuring approximately 2-5mm, has been sold to the horticultural company, J. Arthur Bowers, for use by gardeners in mixing compost, bulb fibre and lining flower bowls. Finally, we are hoping that the very fine particles of dust will be usable in the making of glass bottles.

The disposal of these smaller grades of charcoal has meant that a potential waste product has been converted into a variety of specialist uses. If you are thinking of having barbecues this summer, our own

Museum charcoal can always be purchased from the shop. Alternatively, we are pleased to give trade prices for bulk purchases, if ordered through the office.

The Founding Years — Kim Leslie

Kim Leslie, one of the Museum's founder members, has written a booklet on the founding years of the Museum.

When Kim suggested the publication of an account of the first years he pointed out that 1990 would be a very suitable year in which to publish it. Twenty-five years ago on October 24 1965, the idea of the Museum was first born, 21 years ago

Southdown Sheep Society's Centenary Book

1991 is the Centenary of the Southdown Sheep Society, the famous breed of sheep that was developed a century before the foundation of the Society by John Ellman of Glynde. The breed formed an integral part of the Downland farming system.

The Southdown Sheep Society decided to celebrate the Centenary by commissioning Valerie Porter to write a history of the breed. This is to be published by the Museum and generously produced by publishers John Wiley of Chichester. Help has also been received in this venture from the Society of Sussex Downsmen.

This well illustrated book will be launched at the South of England Show on June 7th, and will be available from the Museum. A pre-publication offer is enclosed with this magazine.

on April 1 1969, the re-erection of the first building started, and 20 years ago on September 5 1970, the Museum was first open to the public.

Kim Leslie's account of 1965 to 1970 chronicles those critical years of foundation. To all interested in the Museum the book (24pp) makes good reading. It is available from the Museum Office £2.00 post free, or from the Museum Shop.

NORTHERN EUROPEAN OPEN AIR MUSEUM TOUR FOR SEPTEMBER

The Museum has arranged a special opportunity to visit three of Northern Europe's major open air museums from September 19-23. The visit will take in Bokrijk Open Air Museum in Belgium, the Westphalian Open Air Museum at Detmold and the Arnhem Open Air Museum in The Netherlands.

All of these have extensive high quality collections of buildings and associated folk life collections representative of their regions. At each museum the group will be met by a representative of the Museum and there will be some "behind the scenes" opportunities. The tour is

also open to those working in or supporters of other UK open air museums.

The cost of the five-day tour is £199 covering travel, breakfast and evening accommodation and museum entrance charges. The trip is being organised by Richard Pailthorpe and will be led by Chris Zeuner.

A form giving further details of the tour is enclosed with this Magazine. Please complete it and return it to the Museum office if you would like to take advantage of this opportunity.

Friends' Fund-Raising Luncheons

The Friends have embarked on another new fund-raising activity in recent months — luncheons at which delicious hot lunches are accompanied by interesting speakers.

The next luncheon will be at Slindon's Coronation Hall on Monday, March 25 when the speaker will be Lord Nicholas Gordon-Lennox on *The Lighter Side of the Diplomatic Service*. Tickets are available at £7.50 from Virginia Lyon, Timbers, School Hill, Slindon, Arundel BN18 0RA. Please apply promptly if you would like to come and enclose an s.a.e. An

application form is enclosed with the Magazine.

The first luncheon was held on November 1 when a team of cooks from the Friends' committee and others provided a wonderful meal for 50 people and raised £400. Speaker Paul Nicoll was forced to cancel at the last moment but his assistant Caroline Broster stepped most capably into the breach. Floral arrangements given by a Friend in Slindon were auctioned and the raffle drawn, adding nearly £100 to the total.

Junior Friends Revived!

Refreshed and revived, the Junior Friends Working Party is putting together an interesting new season for members of the Junior Friends. Meetings are to be held at the Museum between 10 a.m. and 3 p.m. on the third Saturday of the months of April, May, June, September and October.

The 1991 programme is to open with a party in the new Sole Street Refreshment Room in April when details of the programme will be revealed and interests sounded out amongst the members. There will be a Summer Week at the beginning of the School Summer Vacation when all kinds of activities will be available, and the year will close with a Christmas Party.

Thanks are due to Nick Hutson and his friends who kept the Junior Friends pot boiling between Education Officers. More volunteer helpers, preferably with experience of running activities with young people, will be needed. Anyone who is interested should contact Geoff King, the Education Officer, at the Museum.

Moth Barbecue:

Sindles Farm, near Emsworth
26 June: 8.30 p.m.

Museum Trustee John Veltom is kindly inviting members of the Friends, volunteers, fellow Trustees, Museum staff, your families and friends to a barbecue in the woods at his farm at Aldsworth, near Emsworth in Hampshire.

Subject to the weather a variety of moths should be attracted to the lights which will be set nearby. The moths start to show themselves as darkness falls. Be prepared for a walk of about ten minutes along a track from the farm. A torch will be useful and it could be a good idea to have anti-insect cream with you to keep the midges away!

If wet, the barbecue will be in a barn and John will talk more about the conservation work on his farm, and less about the moths. An interesting evening is promised, wet or dry.

Tickets — at £3.50 each to include barbecue food and a glass of wine or soft drink — will be limited in number. Further details are on the form enclosed with the magazine.

Picnic With Sussex Songs Planned For June

The Friends are arranging a Picnic Party with Bob Copper and Family providing an evening of traditional Sussex songs on Saturday June 1 from 7 p.m.

Tickets are £2.50 to include a glass of wine or soft drink. Bring your own picnic and additional drink if you like and cushions, rugs or chairs, and get settled for a wonderful evening to remember! A marquee will be available if the weather is unkind.

Please complete the form enclosed with the Magazine to make sure of your ticket as early as possible.

Coded Friends!

A major reorganisation of the Friends Address List has been completed. Every address has been coded to enable the address labels to be printed in convenient batches. The code will appear as three letters or numerals on the label. A further innovation, which will reduce the clerical work, is the introduction of a new style of Membership Card on to which the labels will be fixed.

Andrew's Magic Litter Machine

We all know the Museum is like an iceberg, with only a small part showing and the bulk of it hidden from view! This is particularly true in respect of cleaning operations, which go on efficiently and silently in the mornings in the capable hands of Hazel Bleach and Christine Holder.

One of their concerns is how to convey full litter bags to the bins in an easy and rapid manner. Fortunately our foreman, Andrew Hodby, is inventive and came up with a vehicle which looks like an antiquated ice cream seller's machine, but which he assures us is his own design, circa 1990.

In the afternoons during the busy summer season a different form of transport is in use in the cause of litter bin emptying, when Horseman John Chattaway harnesses William to his cart and with his wife Jean ensure that the site is tidy for the next day.



Andrew and machine, with Hazel Bleach on the left and Christine Holder on the right.

Richard Pailthorpe



Diana Zeuner

Visitors enjoy the Heavy Horse Day last Summer — Angela Gifford making determined progress towards the Grand Parade with her two charges.

WEALD & DOWNLAND Open Air Museum

Singleton, West Sussex (0243 63) 348

Events Diary — 1991

March	25	Friends Luncheon at Slindon. Speaker Lord Nicholas Gordon-Lennox	June	26	Moth Walk and Barbecue at Sindles Farm, Aldsworth led by John Veltom
March	25	Chichester Visitors Group Leaflet Exchange at the Regis Centre, Bognor Regis	June	27	Weald and Downland Open Air Museum AGM
March 31-April 1		TRADITIONAL FOOD FAIR			
April	1	Museum Horse & Waggon at Regents Park Parade	July	3	<i>Farm Buildings of the Eastern High Weald 1450-1750</i> . Lecture by D. Martin: Crawley Hall at 7.00 p.m.
April	3	<i>Walderton House Video</i> : Crawley Hall at 7.00 p.m.	July	7	Southern Early Music Forum: 2.00-5.00 p.m.
April	11-15	Friends Trip to Norfolk	July	14	Museum Caravan at Queen Elizabeth Country Park Country Fair
April	26	<i>Medieval Life in Replica</i> . Joint Centre for Heritage Conservation and Management Seminar at the Museum	July	21	SHOW FOR RARE AND TRADITIONAL BREEDS
April	27	Friends AGM, West Dean College	July 23-August 31		PENNY ROYAL THEATRE — DAILY PERFORMANCES EXCEPT MONDAYS Contact Museum office for details of programme
May	4-6	Guild of Sussex Craftsmen Exhibition at the Museum	July	27	Morris Dancing 2.30 p.m.
May	6	Museum horse and waggon at Portsmouth Parade	August	1-31	Daily Demonstrations and Activities
May	9	<i>Farming between the Wars at Elsted</i> . Family video presented by Michael Shaxson: Crawley Hall at 7.00 p.m.	August	24-26	THE NATURAL WORLD — Friends of the Museum Craft Fair
May	22	Walk around West Dean Park led by Tim Heymann, agent to the Edward James Foundation at 7.00 p.m.	September	19-23	Museum trip to Northern European Open Air Museums
May	27	NOVICE SHEEP DOG TRIALS	September	28	Livery Company Day at the Museum
May	27	Museum Caravan at Surrey Show	September	29	APPLE DAY
May	31	Goodwood Evening Race Meeting	October	2	Joint Centre for Heritage Conservation and Management Timber Framing Course Day Seminar at the Museum
June	1	Friends Evening Picnic and Concert by Bob Copper and Family	October	6	British Association of Friends of Museums visit to the Museum
June	2	Sheep Shearing and 'Fleece to Jumper' Competition	October	26-27	STEAM THRESHING AND PLOUGHING WITH HEAVY HORSES
June	6-8	Museum Caravan at the South of England Show, Ardingly			
June	9	HEAVY HORSES AT SINGLETON	December	19	MUSEUM CAROLS 7.00 p.m.

WEALD & DOWNLAND



The Weald and Downland Open Air Museum, Singleton, Chichester, West Sussex.
Telephone: (0243 63) 348

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Richard Pailthorpe

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Magazine Editor
Diana Zeuner