

The Building Limes Forum Ireland Newsletter

Comments and articles in this newsletter do not necessarily reflect the views of the Committee or the Editor

Editorial

How things have changed since our first issue. The casual expectation of hyper-growth in the building industry year after year has been replaced with more than a little concern for the future.

But is it really all doom and gloom? Is it just the subtle balancing of natural selection I wonder? Will the best survive and thrive and will the 'cowboy' ride into the sunset? And more importantly, is that not what we always wanted in the Lime world where high level skill, experience and talent are rewarded.



New Building, Lime used at all stages of construction.

Furthermore, some of the best entrepreneurial talent here and worldwide have finally turned their attention to sustainable building products and methods. Is this good for the lime industry? Could we have even contemplated co-hosting a 'Lime in New Build' with the OPW four or five years ago? Without doubt and regardless of general building patterns in Ireland, Lime is still on the up.

We have included a number of interesting projects in this issue of the newsletter to highlight the continuing growth of lime use in Engineering projects and New Build as well as in historic buildings.

Hugh Dorrian
Editor

Bridge Management on National Roads

Extract from 'Bridge Management on National Roads' published recently in 'The Engineers Journal.'

-Many masonry arch bridges on national routes have suffered from a low level of maintenance in the past and are exhibiting signs of deterioration. Bridges, particularly on national secondary routes, are typically not paved for the full width between the parapets and contain soft verges adjacent to the parapets which allow water to percolate through the fill removing the fines from the backfill and washing out the mortar between the voussoir stones forming the arch barrel. In such cases the depth of arch barrel that can be used when assessing the structural capacity of a bridge is reduced. Figure 4 shows mortar washout in a masonry arch.



Given the scale of repairs required to arch bridges, in 2004 the NRA undertook trials of various lime mortar mixes and application methods to establish a working specification for undertaking horizontal, vertical and overhead repointing in areas where the loss of mortar is as deep as 200mm, and as wide as 80mm between stones at the intrados.

There are two significant reasons for repointing using lime mortar rather than cementitious mortar. Firstly, masonry arch bridges were constructed using lime mortar, and repointing with a similar material makes a

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significant contribution to maintaining the built heritage of the nation given the maintenance is sympathetic to the character of the bridge. Secondly, there are technical reasons for using lime mortar; such mortar has a higher flexural strength than cementitious mortar, and is therefore more likely to accommodate the thermal and load-induced movements of the arch barrel without giving rise to cracking of the mortar or the stones. It also has a lower compressive strength than cementitious mortar and will always act as the sacrificial element of the stone/mortar matrix, in accordance with the intentions of the engineers and stonemasons who constructed them.

Figure 5: Repointing using sprayed mortar



The specification allows for a number of lime mortar mixes to be used in application by hand, or by mechanical means using adapted sprayed concrete apparatus. Figure 5 shows the mechanical process in action. There have been difficulties with the development of particular aspects of the specification in relation to maintaining compressive and flexural strengths, and the project is work in progress.

The arch repair works are preceded by the installation of kerbed hard standings to replace the soft verges, where appropriate, to provide positive drainage on the bridge surface. This helps to ensure the arch barrel is dry prior to embarking on the re-pointing works. It can be difficult to maintain adhesion between freshly placed mortar and the stone

substrate, particularly with overhead pointing, if water is running through the arch barrel from the road above.

It is imperative that environmental issues are given full consideration during the design phase of each scheme. The requirements of the Fisheries Boards and the National Parks and Wildlife Service should be sought and adhered to. Surveys to indicate the existence of bat roosting sites, or potential roosting sites, within arches are undertaken by bat experts in advance of the works. Ameliorative measures including the use of specially constructed 'bat bricks', or ensuring that a small number of crevices are left open, can be taken when roosting sites have been found.

There has been a resurgence in the use of lime mortar in recent times, particularly in the restoration of old buildings, however many bridge owners are unaware of the benefits of using lime mortar to repair bridges. Indeed the need to encourage bridge owners to retain and repair damaged arch bridges, rather than replace, is more prevalent now than ever before.

This extract was kindly provided by Liam Duffy, Project Manager, National Roads Authority. Thanks to Pat McAfee also for the initial sourcing.

Lime Kiln Revival?

Tadhg Walshe writes:

Dear Hugh

Following a visit West this weekend, I had hoped to have a small but more precise story on two primitive lime producing facilities in the town land of Ballyquirke, Moycullen, County Galway (where I hail from!). The elderly local man who first told me about these 'Lime Kilns' died 20 years ago.

I visited the 'sites' in the rain on Saturday, 2nd February. Only one of the two sites is well

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enough defined now to distinguish it from the surrounding terrain. It is fairly well accessible - the dirt tracks have pretty good foundations. The precise site is hollowed and while low lying is well drained - Ballyquirke Lake is 200 metres away. It is now surrounded by a native hazel, ash and holly wood. There are some biggish limestone boulders partially submerged in the soil here. This 'facility' has not been used for more than 50 years.

I'd like to learn from other members if any members are aware of similar primitive so called 'Lime Kilns' like this one. Also I would like to learn how one might sensitively investigate and determine if lime was produced at this place in the past and how the necessary fires might be successfully produced.

Tadhg Walshe

Editor: Tadhg, this is a great social history question. Who were the men who worked these kilns? How did they do it? Do we have any traditional limekiln enthusiasts out there? Comments to info@blfi.net

Face lift of 128 years oldie.

Thanks to Gilbert Stucky for this article

-This project is located in Dun Laoghaire-Glenageary area, the house was built in 1880 along with most of Dun Laoghaire's period houses. In fact many of the bay windows fronting those houses have weathered badly, some have been repaired with different level of success, a lot of them have their moulded plaster panelling missing, they have been replaced with flush sand and cement plaster or replaced with timber panelling and timber mouldings which does not weather well.

The structures of those bay windows are made of timber connected to the cantilevered floor joists. The window sills are in timber also and are projecting inside the fabric of the wall and hence are part and parcel of the structure, but unfortunately here lies the weakness of this design; the sills are not sloped, the water

does stagnate on the sills, in addition, the original lime plaster on the external walls was replaced by a sand and cement plaster at some point, this combination has resulted that the sills were rotting inside the wall due to water ingress and the impermeability of the sand and cement plaster. Through the years the structural strength provided by the sills vanished putting the rest of the bay window under stress.



This bay window was showing dramatic sign of subsidence and needed to be restored urgently, the building was listed in 2001 and the works got approved under the scheme of Grant for the Conservation of a protected structure from Dun Laoghaire-Rathdown County Council. This grant is invaluable, and the Architects Department of the County Council has been very helpful and efficient in processing the grant.

I contracted The Old Builders Company for this project. Because of the exposed location, a less traditional solution was chosen for the plaster support, instead of the timber lathing, a stainless steel rib lath on a breathing

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membrane was fitted as a key for the plaster. The plaster is a mix of 2:1, 2 sand to 1 NHL 3.5 Hydraulic Lime, and for the mouldings we used a pre-mix Eco Mortar. It is proposed, in future, to have the present sand and cement plaster on the walls replaced with a lime plaster to complete the integrity of this project.



As the project manager, designer and owner, I am very pleased with the result and I am sure I have given the oldie another 128 years lease of life.



Heritage Council announces Traditional Farm Building Grants Scheme

The Heritage Council is offering grants to REPS farmers across the country to take care of the outbuildings on their farms. A total of

€5,000,000 will be made available for the next five years and application forms are available by contacting The Heritage Council. The scheme will encourage REPS 4 farmers to repair and maintain farm buildings to ensure they survive into the future.

“The scheme will fund the carrying out of conservation works like slating roofs, carpentry for doors and windows, or using lime mortar to repair stone walls.” said Colm Murray, Architecture Officer with the Heritage Council. “We hope that the scheme will increase the demand for the use of lime mortars and plasters, and for training in the use of these materials. We also hope that farmers will be able to do some of the repair works themselves, and build up an extensive skills base in the use of these techniques. The scheme may increase the availability of these craft skills in the local area for other heritage buildings.”

The grant scheme is the result of a partnership between the Heritage Council and the Department of Agriculture, Fisheries and Food. The maximum grant amount to be offered is €25,000.

Farm buildings play a positive role in the country. Most are made from local materials and add local distinctiveness and character to the countryside. They are a witness to our long-lasting relationship with the land, and are a part of who we are.

“The money will help to conserve old buildings that enhance our countryside. If we lose these wonderful diverse buildings, our landscape will be all the duller,” said Mr. Murray. “The grants scheme will support those farmers who want to see their farm buildings survive into the future.”

*For further details, please contact
Colm Murray, Architecture Officer, the
Heritage Council 056 777 077*

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Weather to Protect

Mark Patterson offers us a most succinct yet thorough guide to protection procedures for Lime work.

The winter period has served to highlight to those of us involved with lime how important it is to protect, and cover up any new lime work.

With the worst of the winter over (hopefully), it is a good time to reflect briefly on when we should be protecting, why we need to and look at a few practical ways of achieving weather protection.

Whilst most people accept the need to protect work in some way during the winter period, this is not the only time of the year in which new lime work is vulnerable. Indeed, at any time of the year, given the wrong conditions and/or location, curing time and the success of a lime mortar could be compromised.

Whilst there is not enough space here to deal with this subject in detail, below is a short guide to assist you in protecting new work carried out in lime.

<i>Weather Condition</i>	<i>Risk to New Lime Work</i>	<i>Protection</i>
Rain	Driving rain – washout new work Penetrating rain – will cause masonry unit to become wet reducing carbonation (of fat lime mortar in particular), and increase length of time until weather protection is achieved/plaster can be decorated.	Polythene sheeting draped just off face of work. Sheeted scaffolding (e.g. monoflex)
Sun	Hot sun – will cause rapid drying of the mortar leading to problems with shrinkage and separation of coats. Pores of mortar can become blocked with fine material transported to surface by evaporation inhibiting carbonation	Damp hessian draped just off face of new work and covered with layer of plastic sheeting. Mist sprayer to keep work damp. Sheeted scaffolding (e.g.

Sun (Contd.)	deeper into the new mortar. A dusty friable finish will be seen on the face of the new work.	monoflex)
Wind	Drying wind – will cause very similar problems to those mentioned in relation to hot sun. Debris – not often considered, but strong winds can cause damage to unprotected new work by way of objects hitting the surface e.g. scaffolding, tools, loose site debris etc.	Polythene sheeting draped just off face of work. Sheeted scaffolding (e.g. netting/ monoflex)
Frost/Cold	Temperature – below 5°C, the carbonation and hydraulic set of lime is slowed resulting in longer cure times and so increased protection times. Frost damage – new mortar still curing is susceptible to damage by frost due to the water content and slower cure. The freeze/thaw action will damage uncarbonated material leading to friable, weak finishes.	Carpet underlay or bubble wrap draped just off face of work. Polystyrene sheets attached to scaffolding. Sheeted scaffolding (e.g. monoflex) Internally, a heater on a low heat to raise temperature above 5°C
When working with lime, protection is recommended below 5°C and above 20°C. Work should always be questioned outside these limits and scheduled for another more suitable time if possible. When specifying or working with lime, the correct approach to protection should always be to create a micro-climate where new work can be allowed to cure in a controlled and stable manner.		

Editor: Thanks Mark, you can't say this often enough.

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One, one, one shell coat render.

Ivor McElveen, CEng. Conservation Consultancy, tells of this appealing lime application technique.

On a recent visit to West Dean, where the English Heritage backed conservation CPD courses are held, I was introduced to an innovative use of NHL2. The Cornish Lime Company, Bodim, Cornwall has developed, if that is the correct term, a thick lime render shell coat that is somewhat akin to the proverbial 11 coats of lime wash of old. A quick and easy cost effective solution for the creation of a sacrificial breathable membrane for masonry walls.

The mix is equal parts by volume of NHL2, to fine clean white silica sand and water. Ideally it is left to sour for between four to six hours. The mix which has the consistency of a runny yogurt is then applied with a lime wash brush, and rubbed in while still green to the conventional lime wash methodology.

As the shell coat naturally follows the contours of the masonry wall, be it formal or rubble, the end result can be attractive and produce a surface replicating that of multilayered lime wash.

Phil Brown of Cornish Lime claims that it has been used successfully for both internal and external walls, and natural colour pigments can be used to good effect.

Maybe worth considering for some applications where a conventional render is too thick, and would detract from the original architectural authenticity, and where the cost of a multi-coat lime wash application would be prohibitive.

Editor: *Ivor, I'm with you and Phil on this one. It's a great finish using a material that traditionally was used to give ornamental features a thin protective coat. This Shell Coat or 'Shelter Coat', (I've heard it referred*

to as a 'fortified' lime wash once) is referred to as a 'slurry' coat in Cork.



Lime harling with Shelter Coat on property in Kinsale, Co. Cork.
(Naturally Hydraulic Lime also used to form reveal)

Membership

The following 2008 membership prices were ratified at our most recent AGM with no change from 2007.

The 2008 rates are:
€60/£40 Sterling – for individual membership
€150/£100 Sterling – corporate membership
€30/£20 Sterling for students and young persons (under 25)
€60/£40 Sterling – for institutional membership (Journal only)

In the meantime, for those who haven't signed up for this year, the membership renewal forms have been posted so we look forward to seeing all the existing members renew and we hope to welcome some new members also. Membership can be paid by cheque or credit card.

A Membership Application Form will accompany this Newsletter. Please feel free to use it for your own membership application or pass on to any other interested party.

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Old and new brickwork

Mark Patterson shows some expert mortar-colour matching between new and old brick pointing.



He writes:

This was a contract to restore some Victorian apartments in the suburbs of Belfast. As part of the project, an old garage added in the 1960s was demolished and the owner decided to use NHL3.5 to build a red brickwork extension where the garage had once stood. Similarly, a new extension was added to the rear of the property to provide some larger living accommodation. For the finished brick pointing, NHL3.5 was used with the addition of red brick dust, red and yellow sands to match the original pointing as closely as possible.

1. NHL3.5 with added red brick dust and coloured sands for colour matching existing mortar.
2. New build extension to front in brick using NHL3.5.
3. New build extension to rear in brick using NHL3.5.

Mark also has a fine example of the use of lime in a new-build extension to a period house in Co. Armagh.



Here, Internal work was carried out with NHL2, externally with NHL5 and decorated with pink Lime wash.

Lime crete floor (NHL5 & stone with NHL5 sand screed on top) were laid internally and finally Cobbles and kerbing externally laid in and grouted with NHL5.

Christchurch Cathedral, Waterford

Henry O'D Thompson shares his work on this project.

The original Norman Gothic Cathedral was built in 1210. In the 18th Century a progressive City Corporation regarded this Gothic Cathedral as being very old fashioned and recommended to the Bishop that a new one should be constructed. It is said that Bishop Chenevix was none too happy with the idea so a little ruse had to be used to 'help' him change his mind. Some potential builders had arranged for rubble to fall in the Bishops path as he walked through the Church, sufficiently close to give him a shock or two! After a couple of narrow escapes Chenevix decided that a new Cathedral was a must. In 1773 the Norman Gothic Cathedral came down, but so strongly was it built that gunpowder had to be used in its demolition. The present Cathedral was begun in 1773 and was completed in 1779.

The building was covered in extraordinary hard terrazzo type cement, 3" thick, mixed

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with marble chippings in a bizarre 1970's decorative extravaganza. This was a building in desperate need of lime relief.



Interestingly during cement plaster removals evidence of a lot of the re-use of stonework from the original medieval building was evident, especially noticeable was the cut stone from the columns and window mouldings, some of which still had the original brightly coloured red ochre lime wash. This was covered and protected with breather membrane and stainless lath so it could be inspected in the future.



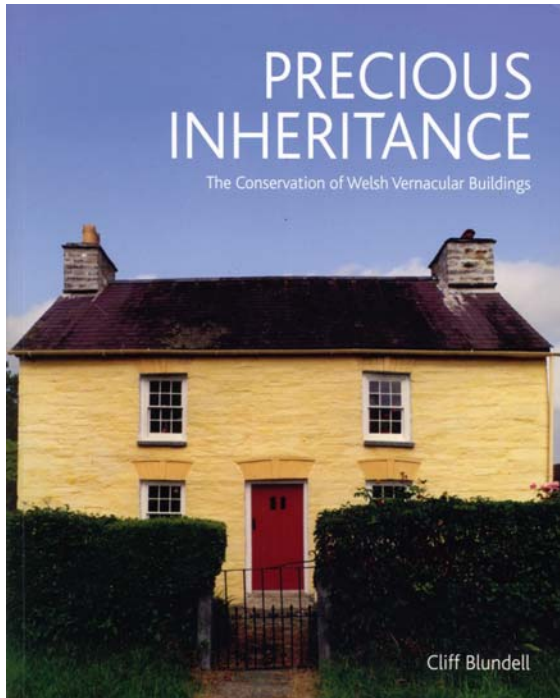
A few years previously some lime work was done to the south wall, whilst that plastering job was technically carried out adequately it was a classic demonstration of an inexperienced contractor's insensitivity and misunderstanding of the dynamics of old buildings. During the application the straight edge was in full use with the result that a flat perfect wall of plaster became the primary goal rather than working with the existing contours of the building. This resulted in the covering of the bevelled edges of the coyne (sic) stones and protruding plaster past the edges of stone cornices and string courses.

Lime by its nature needs to be built up in layers to give it time to cure, this and the nature of the tools available to plasterers of old, along with the imperfections inherent in rubble stone walls gave the old plaster walls the character, the gentle subtle curves and undulation typical of the time. In new works today it's most important to replicate this by utilising similar methods, but without exaggerated contrived bumps so popular with the standard tradesman unfamiliar with conservation work. As a result the cut stone work is well defined; the bevelled edges clearly visible, the plasterwork imperceptibly worked to give the finished wall a traditional look and feel.

Although this building would no doubt have originally been wetdashed, it had for many years been more formally ashlar and this is what the church vestry wished to continue with. Again the previous work showed insensitivity in the execution of the ashlar lines as they clashed with the Gibson cut stone window mouldings. The Architect came up with a clever way of separating these clashing lines by creating a line break surrounding the windows.



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PRECIOUS INHERITANCE The Conservation of Welsh Vernacular Buildings.

*Reviewed by Grellan D. Rourke,
Director & Committee Member, BLFI.*

The author, Cliff Blundell, is a historic buildings expert based in Pembrokeshire and a director of The Lime Company of West Wales. He teaches regularly on courses and writes on vernacular building maintenance, repair and conservation. He is a member of the committee of the Building Limes Forum.

He is an advocate of a minimal intervention approach and his book sets out to explain how this can be achieved. He shares and disseminates the wide knowledge he has gained through his experience in conservation as an active practitioner. While the book concerns the preservation of historic buildings it focuses completely on small everyday vernacular buildings built using local materials and traditions. There are about half a million of these dwellings in Wales and many have suffered terribly through ignorance. This publication addresses this and will hopefully ensure the survival of many more of these structures. The book is set out in ten chapters, followed by five case studies.

There is an introduction to local building materials, often individual to different areas.

Traditional construction was linked to local availability of materials, practicality and it is sustainable and environmentally friendly. It is easy to recycle and, due to recent conservation and environmental requirements, there is now a revival of interest. He goes on to describe two very different building traditions in Wales, one using rubble stone walls and the other using timber frame with infill panels. He also refers to earthen walls and explains how vulnerable such structures are once their outer protective layer is no longer functioning. One of the most important characteristics of such buildings is their ability to accommodate movement and manage water, allowing for a continual cycle of water absorption and evaporation and providing breathing, living structures.

The second chapter sets out two reasons for preservation. The first is an emotional one connecting us to the past. The second is economic and he explains how traditional building materials are energy efficient and better environmentally. He sees a great need for instruction but in Wales, unlike England and Scotland, there is a lack of an official centre to support the use of local materials and the skills required to use them. Those in private practice have filled some of the gaps. In his next chapter he introduces the conservation approach and states that conservation is repair. It is important to understand a building and how it functions; this will inform the appropriate approach. There is a need for education and training to turn specialist skills into general practice. He discusses the thorny issue of building regulations as they apply to historic buildings. In many cases great harm is being done and, while there is now exemption provision in certain cases, many buildings fall outside of the exemption categories. He is plain speaking on the issue and laments the fact that there is not a better understanding of the requirements of the vernacular. He closes this chapter by stating that as caretakers of our built inheritance we have an obligation to take care of it to ensure its survival.

The author then introduces lime and puts it in a historic context and this makes for fascinating reading. He describes the lime cycle which is beautifully illustrated by a drawing from Tŷ-Mawr Lime. He goes on to explain with great clarity the different types of lime and the processes used in their manufacture, describing the introduction of categories based on setting

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times and strengths. He discusses the growth in the use of cement as a building material particularly during the nineteenth century. The development of limekilns is also included at the close of this chapter and he illustrates some varied examples. The fifth chapter deals with using lime and how important and essential it is to use the proper sands, the correct choice being an essential ingredient for success. Used correctly, lime will accommodate movement and allow for both breathability and flexibility. He discusses cement. Its advantages were soon widely recognised while its disadvantages were largely ignored. In time it came into common use in house building and took over from the traditional building materials and, of course, it was used to repair older structures built with lime. This has caused and is still causing terrible problems today. This chapter closes with presenting the case for using lime in new build.

The next chapter deals with learning from the past and the author speaks from his great depth of practical experience. He stresses the importance of observation and the realisation that effective water management is one of the keys to getting things right. He covers shelter coats, surface finishes and the variety of traditional colours. Hardly ever was stone exposed and this is very much the case here in Ireland too. He discusses the Victorian concept of the 'rural idyll' which dominated the latter half of the nineteenth century and explains how this affected our view of vernacular buildings. In preserving these buildings many mistakes have been made in the past and we must learn from these.

There then follows chapters on Roofs & Floors and Windows & Doors. The roof elements are dealt with first. Local hand-worked local materials were frequently used and in this section there is a wonderfully evocative photograph of local hand-riven highly textured silvery-grey slate. Inappropriate repairs are often carried out using imported slate, asbestos slate and cement tiles. Historic floors were often of beaten earth, cobblestones and lime with aggregate and ash although there are few surviving. More common are stone and slate flags and quarry tiles laid directly on the ground. The issue of rising damp is dealt with in detail and the use of chemical impregnation, which is often not suitable for vernacular buildings. There is a new alternative in lime-crete floors and it is possible to incorporate

heating in this construction. They are a good solution and are regulation and environmentally friendly.

Visual blight appears with the inappropriate use of uPVC windows which destroy the aesthetic of historic buildings and reduce the light. While they are sold as never requiring maintenance this is not, in fact, the case as the seals break down and the plastic material degrades and discolours. There are also environmental problems associated with these windows. The effect of inappropriate change is well illustrated with three photographs of a terrace showing the replacement of a wooden bay window with aluminium and the eventual removal of the bay itself. Doors too have suffered a similar fate. It makes sense that local tradition should dictate the style of the door.

Farm buildings are allocated a chapter on their own as these are now very much at risk. The final chapter deals with care and maintenance. Regular checks and inspections should be made and major problems usually only occur when maintenance is ignored. Owners are urged to enter into a relationship with and understand their buildings and so ensure long term preservation. There are five case studies, practical examples of putting what has been said into practice. These projects are varied and have been well chosen to demonstrate a broad range of problems and solutions. The owners have all been fully involved and in some case did some of the work themselves. These are the converted and they in turn encourage others to follow the same path. Their involvement and enthusiasm will ensure the ongoing maintenance of these houses. At the back of the book the author provides a list of the major course and training providers in the UK and useful websites where readers can search for additional information and direction.

Cliff Blundell is truly passionate about his subject. This book is well written, the writing style drawing the reader in and holding his attention. The clarity of the writing makes for a very understandable text. The book is also well illustrated with appropriate good quality photographs used throughout. It is an essential reference book for anyone who has an interest in historic vernacular architecture. I couldn't recommend it more enthusiastically. It has been beautifully designed by Ian Findlay and can be purchased directly from Cliff Blundell

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(crugbach@hotmail.com). At.110 pages it costs a very modest £14.75.

The BLFI hope to bring Cliff Blundell over to Ireland later in the year to give a lecture on his work in preserving historic buildings in Wales.

Editor: Thank you Grellan for such a thorough and insightful review.

Events

BLFI/OPW Lime in New Build 6th March 2008, Dublin Castle

The Building Limes Forum Ireland (BLFI) in conjunction with the International Building Limes Forum (BLF) propose to facilitate a one-day CPD seminar for the OPW and their invited guests on Lime in New Build, to be held in Dublin Castle Conference Centre on 06 March 2008.

The speakers include specialists with expertise in the area of lime in new build construction arising from their practice and related research projects.

This seminar will be of interest to professionals, contracting firms, clients/developers and those with a responsibility for the built environment. BLF/BLFI hope that the information provided will lead to a greater understanding of the why, when and how of lime in new construction and a better appreciation of the immediate and future benefits.

2008 International Building Limes Forum Conference

14-17 August 2008 Isle of Man

The 2008 conference and gathering is being planned for Thursday 14 to Sunday 17 August 2008 on the Isle of Man. Thursday is set aside for people to travel to the Isle of Man with a social gathering in Port Erin in the evening. All you have to do is get to the Isle of Man; there will be transport laid on from sea- and airports to all the various venues.

The theme of the conference is 'Maritime Lime' with the emphasis of talks and visits on the use of lime in harsh and salty environs. It is hoped to have lime from local limestone to evaluate and case studies combined with site visits during which the expertise of delegates will be called upon.

More information about the conference and gathering will be in the next newsletter along with a booking form, but if you want to make arrangements now, there is a list of transport and accommodation options on the Building Limes Forum website. We recommend that if you are travelling by air that you book your flights soon as prices rise closer to the date of travel.

Ashley Pettit, telephone 01624 624307 or conference@buildinglimesforum.org.uk.
(Adapted excerpt from BLF Newsletter)

Other Upcoming Events

BLFI members and guests, keep your eyes peeled and ears cocked for details on upcoming events in **Kilkenny and Derry**. Derry is first up with a soon-to-be confirmed date late April or early May expected. We will continue with the successful formula of partnering with the local authorities to bring a balanced programme of demonstrations and talks with something for all local lime enthusiasts.

Old Lime Text

Edward Byrne offers his first snippet from his store of old books and periodicals, cataloguing the use of lime in times past:

Editor: Although date and author cannot be found, our first excerpt gives a valuable insight into an early debate on lime mixes.

'Our forefathers made mortar in one way, as perfect as their knowledge admitted, and doubtlessly that way was all that was practically necessary to secure the results then sought for –so we continue without

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examination in the track they beat for us. Our requirements are, however, very different. Railroads, and the constructions they necessitate, have modified very materially the science of construction. In England, especially of late years, works have been executed which so immeasurably surpass in boldness anything which had been previously attempted, that we may be justified in expressing out surprise that so few attempts have been made to ascertain the real nature of the materials dealt with. Is it not to this neglect that we may attribute the numerous failures we read of?

Some of these failures have been so remarkable, and some recent business transactions have displayed so singular an inattention to the nature of properties of lime, that the author deems it his right to provoke a discussion upon the subject, trusting that abler heads and hands will complete what he has so imperfectly begun. This branch of chemical knowledge has been so entirely 'revolutionised' of late, so much uncertainty still remains to overshadow it, that it would be worse than folly to make any assertion which would lead to a belief that even the very fundamental principles were not, even now, susceptible of modification. That which is to desired above all things is to rouse the professions of engineers and architects from the apathy with which they treat such as the one before us – the very alpha and omega of their business. There is, however, something so invidious in attacking openly a generally received opinion, as the author has done with respect to the mode of making mortar practised in this country, page 66 and subsequently, that he throws himself upon the consideration of his professional brethren, in the hope that they will excuse his boldness on the score of his sincere desire to advance the true interests of science.

At the same time the author would beg to protest very energetically against the "rule of thumb" methods which prevail in England in the manipulation of mortars. Architects and engineers, it is true, prescribe certain proportions of lime and sand to be employed; but in practice " the foreman of the pug mill,"

as the labourers call the person entrusted with this work, is the only authority, and he mixes the ingredients precisely as it suits his fancy. In reality, mortar-making is a branch of practical chemistry- on a large scale, it is true- one which does not admit of the care and exactness of the laboratory. But the safety of a building often depends upon the perfection with which this operation is executed, and a certain amount of is necessary to insure that perfection. For more than twenty-five years the author has been employed in operations; but in the whole course of his experience he never saw in any construction, in England, a measure used to ascertain the proportions of the ingredients employed for making mortar.

We have seen of late years far too many accidents, too many absurdities committed, not to render it necessary to protest loudly against the carelessness with which the use of limes is regarded.....'



St. Peter's School, Phibsboro, - example of new build construction using lime currently on site:

Blackwood Associates Architects

Communicating with your Forum

If you would like to respond to any of the topics on this or further Newsletters or if you want to get involved please contact us in writing by way of post or email.

POST

Attn. of Newsletter Editor
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Attn of Newsletter Editor to
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