Newsletter

Building Limes Forum Ireland

Comments and articles in this newsletter do not necessarily reflect the views of the board or editor.

Building Limes Forum Ireland is a community of lime practitioners, specifiers, suppliers and producers of lime. The Forum exists to encourage expertise and understanding in the appropriate use of building limes, and education in the standards of production, preparation, application and aftercare. Building Limes Forum Ireland is connected and affiliated to Building Limes Forums across the world.

Walking Tour 2018
Spike Island, Cobh, Co. Cork

On a wonderful sunny summer's day 24 of us convened on the pier in Cobh, where we met up with our local host Ben Kennedy of Cumnor Building & Civil Engineering Contractors. We were also joined by guides Garrath O'Callaghan and Alan Macilwraith from JCA Architects. Courtesy of Cumnor, we sailed swiftly across the harbour to Spike Island, a 24 acre military fortress island. We viewed recent conservation and repair works involving both protected structures and a national monument, the 200 year old Fort Mitchell. We viewed conservation works being carried out with interventions and infrastructural revisions, part of the ongoing re-development of the entire island as a new visitor attraction by Cork County Council.

Editorial

Welcome to the first newsletter of 2019. Unfortunately, it has been well over a year since our last publication which coincided with Lime Slam 2018. However, this edition will hopefully bring you up to speed on all current BLFI news and events, Firstly we welcome our new Chair, Úna Ní Mhearáin as she updates us on her first year at the helm and indeed plans for the year ahead. Following on there are articles describing two different conservation projects; one the extensive conservation of a castle home in Co. Cork, the other ruin stabilisation of a remote crusher house in a Wicklow mountain location. For those with an interest in brick, there is an article on the dating and making of historic Irish brick. We also have an update on the Hot-Mix Mortars Collaboration followed by examples of the GLAS grant scheme. Many thanks to members who submitted articles. It is through their shared experiences and lessons in this newsletter that we achieve one of our key aims, that of encouraging expertise and understanding in all things lime. Please consider making a submission yourself!

Oiseen Kelly

@BLF_ie

Website Upgrade

www.buildinglimesforumireland.com

Our website has recently been up-graded. It's a work in progress, so all comments and photos welcome.
info@blfi.net

Comment from the Chair

Dear Members,

It has been a privilege to have been elected as chair of the BLFI. I step into Lisa Edden's shoes but do not attempt to fill them. I would like to thank Lisa Edden for all her hard work and dedication in steering the BLFI in the right direction. I look forward to working with you for the next 2-3 years. I feel the strength of the BLFI is in our members and the diverse range of expertise within that membership.

We have a number of events planned throughout the year and I hope you get a chance to participate in some of them. We have already had a very successful Lime Slam and a site visit to Dalkey pier.

I am very much looking forward to listening to our guest speaker, Grellan Rourke, after the AGM. Grellan has been working as a conservation architect in the National Monuments section of the OPW for the past 40 years and brings a wealth of knowledge on the evolution of conservation.

Our walking tour this year will be to Hillsborough Castle, Co. Down on 15th June, where a range of conservation projects have recently been undertaken, many using hot lime mortar mixes.

We are also planning to return to Drimnagh Castle for a training day in the autumn. This will be an update on hot lime mortar mixes.

In the meantime, our friends in the BLF UK and Nigel Copsey are organising a historic mortars conference in York in June. This should be a great event and worth attending. Booking is through the BLF website.

The annual Conference will be held this year in the Engine Shed in Stirling. The annual conference is in many ways the highlight of the BLF year, with talks and demonstrations and site visits over a few days. It is a very sociable event. The annual dinner and Baker Memorial Lecture will be held in Stirling Castle. As Stirling is within easy access, I would encourage members to attend. Numbers from Ireland have been falling in recent years. It would be great to see a few more of us attend this year.

On other matters, in March I made a submission to the Heritage Ireland Plan 2030 on behalf of the BLFI and incorporated contributions from some of our members. The main focus was on the need for a National Centre for Conservation. The submission is available to read on the website.

I am delighted to report that we now have a new website. Check it out. We will continue to add to it and use it for news and events and a repository of information.

Hot limes continue to be the hottest topic in the BLFI. We are currently compiling a database on projects where hot lime mortar mixes have been used around the country. We would welcome contributions from our members. We are looking at lime mixes, types of pozzolans used; methods of mixing; locations; etc.

Oiseen Kelly produces and edits our newsletter. If you have anything that you would like to contribute, please contact her. If you have any interesting projects, please share them with us. Another very good publication is the annual journal published by the BLF. Keep it in mind if you have a paper or project of interest. Alison Henry is the editor and is very helpful in compiling articles.

Our very popular Lime Works publication is almost out of stock. We are down to the last few boxes. We are hoping to republish it in 2020.

We are always looking for people to join the board of the BLFI. We meet bi-monthly in the City Assembly House in Dublin City centre and looking into using skype and other technology to facilitate those who cannot make every meeting in Dublin. Our current board is: Úna Ní Mhearáin, Chair; Grellan Rourke, Company Secretary; Oiseen Kelly, Treasurer; Shane Nolan, Membership Secretary; Lisa Edden, Training; Kevin Blackwood, Bursaries; Henry Thompson; John Beattie; Eoin Madigan; and Dermot Mac Randal. Eszter Nadas is our administrator. We have vacancies for two more people on the board so I would encourage anyone interested to come forward.

Úna Ní Mhearáin

BLFI Board 2018/19

Many thanks to the board members who stepped down last year, Joe Kirwan, Paul Marlowe and Helen Hossack, your time and contributions were greatly appreciated by all.

We remember in particular a most memorable visit to Belfast last June courtesy of our northern colleagues. The board meeting was held in the Assembly Buildings.

We also extend a warm welcome to Henry Thompson, Dermot Mac Randal & John Beattie who have volunteered to join the board this year.

To reiterate Úna's comments above, anyone interested in becoming a board member please contact a current board member or email **info@blfi.net**

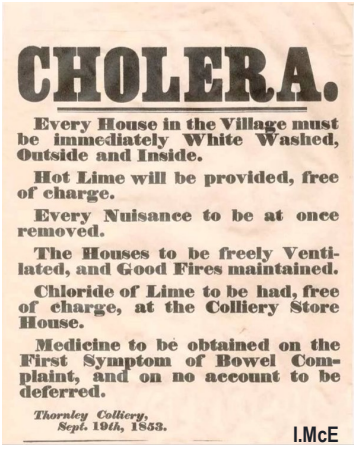
BLFI Site Visit: Rathfarnham Castle Out-buildings 19th Oct 2018 by John Beattie

BFLI Members met at Rathfarnham Castle on a chilly but pleasantly sunny October morning for a tour of the recently completed stabilisation works at the estate's former stableyard and out-buildings. The complex, compromising of three interconnecting yards of single and two-storey structures is located to the immediate north of the castle. Though the castle (a fortified house dating from the late 16th century), is in the custodianship of the Office of Public Works the outbuildings and yards, largely built during the 18th and 19th centuries (in-part incorporating an earlier structure of medieval origin), are the property of South Dublin County Council.
Identified by An Taisce back in 2014 as a 'Structure at Risk', a draft strategy for the regeneration of the Castle outbuildings was prepared by Shaffrey Associates in 2016/17. The present works were carried out by South Dublin County Council in the summer and autumn of 2018 as a 'holding exercise' designed to abate further decay while public consultation into its future reuse continues. The design team was led by Feargal Ó Súilleabháin of South Dublin County Council and included Lee McCabe, Structural Engineer, Faith Wilson, Ecologist and Aisling Collins, Archaeologist. Dr. Jason Bolton provided mortar analysis and commentary on historic mixes. The contractors for the works were James Oliver Hearty & Sons. The project consisted of temporary works to include the shoring of boundary walls, the consolidation and repair of building envelopes, the re-roofing of derelict structures, and the management of heavy vegetative overgrowth. The tour commenced outside a range of buildings known as 'Cromwell's Fort' where Fergal discussed the medieval origins of the structure which, due to later 18th and 19th century interventions, was not immediately apparent. Under the current works programme the exterior had been re-harled by Shane McVerry, using Otterbien NHL 3.5 with synthetic fibres. On entering the structure (aided by torchlight), Cromwell's Fort betrayed its medieval origins, as the curving form of a vast barrel-vaulted space became apparent. The upper stages of the building have long since been removed and a new temporary roof structure has now been installed. The remains of wicker-work centring, identified through judicious investigation, had been analysed through Carbon-14 dating to reveal a date to the 14th century. Returning to the daylight, akin to a labour of 'high-vis vest' wearing moles emerging from the underworld we continued on our tour of the 18th and 19th century ranges where the engineering solutions elected by the Design Team stimulated healthy debate among the BLFI members, particularly with regards to the use of modern trusswork 'temporary' roofs and the substantial bracing to the boundary walls. In the absence of the structural engineer it was concluded to continue the debate on another occasion.
Focus quickly reverted to lime, at the sight and sound of a bell-drum mixer merrily churning away in one corner of the lower yard. Peter McGlade, site foreman explained that repointing works were largely executed in hotlime using 1:3 Clogrennane Kibble quicklime to Wexford sand (5mm down). We saw a demo of the hot mix process where the materials were mixed dry for 10mins before adding water (gauged by experience). This was mixed for a further 20mins and allowed aerate for an additional 10mins before use. As always with any good BLFI demo, we all got a chance to get our hands dirty (albeit with suitable protective gloves).

BLFI members outside the former outbuildings at Rathfarnham Castle. Photo: Úna Ní Mhearáin

Free lime – with a difference, and its hot!

This poster is Welsh, being a public announcement arising from a Cholera outbreak, when the quicklime was provide free. The medical disinfectant properties of lime were recognised at that time. It is speculated that the outbreak in Ireland (1832) could have contributed to the tradition of lime washing houses. Thanks to Anna Meehan, Architect, Heritage Council & Greg Stevenson of Irish Vernacular Architecture for bringing this vignette to our attention.
www.facebook.com/groups/897391157067634/



CHOLERA.

Every House in the Village must be immediately White Washed, Outside and Inside.

Hot Lime will be provided, free of charge.

Every Nuisance to be at once removed.

The Houses to be freely Ventilated, and Good Fires maintained.

Chloride of Lime to be had, free of charge, at the Colliery Store House.

Medicine to be obtained on the First Symptom of Bowel Complaint, and on no account to be deferred.

Thornley Colliery, Sept. 19th, 1853.

I.McE

The HMM Collaboration

Hot-mixed Mortars Collaboration

Hot news on Hot-mix and other matters.

In conjunction with the Hot-mix Mortar Collaboration considerable research has been undertaken by Historic Environment Scotland and an important research project has recently been completed by the University of Bath on behalf of Historic England and the Building Limes Forum UK. Nigel Copsey, one of the principal revivalists of traditional mortars, and a member of the HMM Collaboration, has published his much anticipated book; *Hot Mixed Lime and Traditional Mortars: A Practical Guide to Their Use in Conservation and Repair*.

Details of all the foregoing are given below.

In Ireland it is intended that samples from the BLFI HLM Project test walls and panels at the OPW in Portumna will be subjected to 5-year testing. The tests will be performed at Bill Revie's laboratories in Stirling. Bill is a material scientist and one of the original members of the HLM team. What is not perhaps readily appreciated by many is that the HLM Project is the only evidenced based research available on quicklime and NHL hybrids, although these have been used successfully used in Scotland, and elsewhere, for the last 30 years and even earlier.

In October we will be holding a major HMM Demonstration Workshop at Drimnagh, updating on latest developments and techniques in designing, making and using hot-mix mortars. This is being supported by the Heritage Council.

In June there is the York Symposium being held by Nigel Copsey and supported by the BLF, to be followed by the BLF Gathering and Conference at Historic Environment Scotland's Engine Shed in Sterling in September.

As will be seen from other articles in the Newsletter, hot-mix is now being increasingly adopted as the mortar of choice and many of us are experimenting and trying out new ideas, swapping notes and making some quite fascinating discovers, most of which are gladly positive! The magic role that an added bit of wood ash can achieve in damp conditions makes one wonder what our ancestors knew, and we still don't!

Early 19th century lime kiln

Research and publications

Historic Environment Scotland

Technical Paper 27: Hot-mix Lime Mortar, Microstructures and Functional Performance, by Dr David Wiggins.

Technical Paper 29: Modern examples in Scotland, by Craig Frew.

Technical Paper 28: Specification hot-mix *withdrawn for revision*

Technical Paper 30: Historic examples in Scotland, *publication pending*

Technical Paper 31: Historic References to hot-mix, *publication pending*

www.historicenvironment.scot

University of Bath

Properties and performance of lime mortars for conservation: the role of binder chemistry and curing regime.

PhD thesis by Cristiano Diogo Pinho Figueiredo, University of Bath, Department of Architecture and Civil Engineering, July 2018.

Research project jointly funded by Historic England and the BLF. Thesis available for readership in the University Library. It is understood that a Project Memorandum is pending.

Parties to the HMM Collaboration

Cadw of Wales HED of Northern Ireland

An Chomhairle Oidhreachta The Heritage Council

Historic England

OPW The Office of Public Works

HISTORIC ENVIRONMENT SCOTLAND

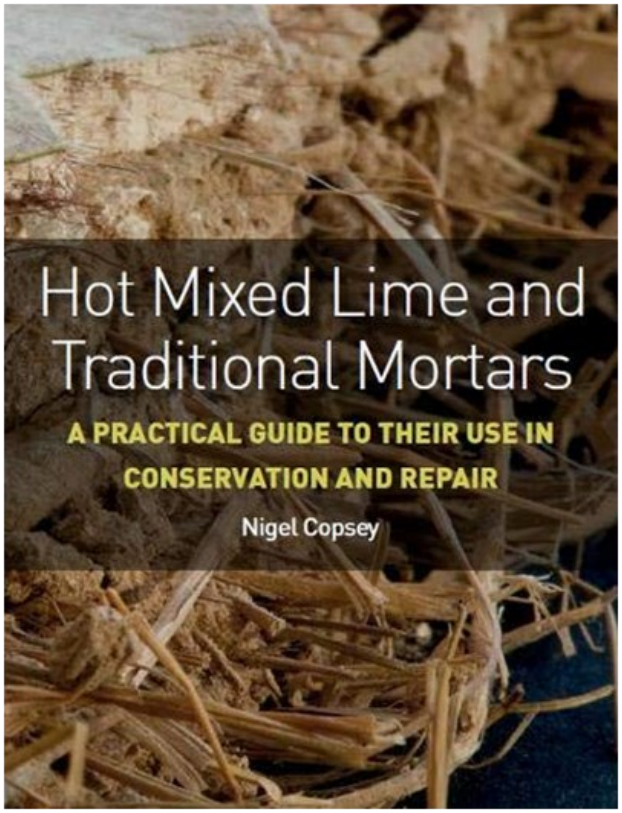
ÀRAINNEACHD EACHDRAIDHEIL ALBA

Coming Events
10th – 12th JUNE:
York Symposium
Traditional Mortars Symposium, University of York and York Minster
20th – 22th SEPTEMBER: 2019 Conference, Stirling
BLF Annual Gathering & Conference
Supported by Historic Environment Scotland
Stirling, Scotland
Booking: BLF www.buildinglimesforum.org.uk/events/

Making hot-mix mortar 16th century style.

A mortar mixer built by Pat Hickey in the Irish National Heritage Park, Wexford

By Ivor McElveen
HMM Steering Committee



Hot Mixed Lime and Traditional Mortars: A Practical Guide to Their Use in Conservation and Repair, by Nigel Copsey

Published by The Crowood Press (Paperback)
Date 22/02/2019
ISBN: 9781785005558
www.crowood.com

Traditional mortars are eminently workable, effectively porous, economic in use and appropriately durable. Used in buildings for thousands of years, these materials are ideal for repair and conservation work. Unlike cement or modern hydraulic lime, their routine use would make a significant contribution in the struggle against climate change. However, despite the 1975 'lime revival' there remains a deficit in research into the most used traditional mortars. This book seeks to redress the balance.

Drawing upon historic literature, material science and industry case studies, topics covered include:

- A historical overview of traditional mortars
- Slaking and mixing hot mixed lime mortars
- The essentials of pozzolans, aggregates and lime tempering
- Plasters, lime washes and sheltercoats
- The revival of interest in the use of like-for-like and compatible mortars

The Restoration of Cor Castle by Harry Good-Stephenson

Cor Castle and the surrounding land has been in my family since the 18th Century. The building was passed down the generations to my grandparents who were living there when it was destroyed by fire in 1921.
I grew up playing in the roofless ruin and the idea of restoring it became part of my DNA. Over time I built a successful property development business alongside a career as an airline pilot to the point that I eventually decided to leave flying and focus on property full time. The business had the secondary benefit of teaching me a great deal about old buildings, the various trades and materials to use etc. One of my projects in 1996 required lime pointing and plastering. My lime education was under way! and another important lesson logged for Cor Castle and Roundtower Lime.
By 1998 I was in a financial position to start work. The 1921 fire had basically gutted the building and nature had taken its' toll over the subsequent decades. We were left with a stone shell, of which some parts had collapsed, and a large sycamore tree in the middle of the drawing room growing through the building and out the top!
I put together a small crew and purchased a load of scaffolding; I decided to purchase as opposed to hiring as I was not sure how long this project was going to take! The scaffolding allowed us for the first time to evaluate the upper parts of the building and along with our initial evaluation of the structure we were able decide on the materials to use, most of the stonework which had collapsed was still on the ground so could be re-used. We could obtain quick lime in Ireland from the glass and sugar beet industries so we decided to slake our own fat lime and make Roundtower course stuff using a local sharp sand. We set up a small slaking plant, bought a mortar mill and put together a large batch of course stuff for use on the project.
Very soon after we started making lime putty Jeremy

Irons (the actor) arrived to enquire if he could purchase some for his restoration of Kilcoe Castle, a medieval structure further along the coast. I agreed and Roundtower Lime was born!
We set about removing all the vegetation, the building had been virtually covered in ivy. As well as the ivy we had many crows and jackdaws living in the chimneys! We then raked out and re-pointed the walls both inside and out. For all the inside work we used Roundtower course stuff with brick dust and externally we used the same on the sheltered North and East elevations and Roundtower NHL 3.5 on the exposed South and West elevations. This was a major job as the entire building required re-pointing and parts of it are 4 stories high. Most of the window and door openings had timber heads with relieving stone arches above. Some of the openings had brick surrounds and arches. All the timber had rotted or was damaged by the fire so we had many opening which were unstable. The bricks used in the original building were very soft and these would crumble on touch.
These openings and their stabilization was vital to securing the structure and in the areas where walls had collapsed it was mainly due to several openings over each other becoming unstable over the years of decay until eventually the wall collapsed. I managed to source a batch of bricks from a lime built house locally which had been demolished and these were used to replace the existing brick reveals where necessary.
As the opening stabilization, parapet work and re-pointing progressed, we began to achieve a stable structure once more. Once an area was stabilized we constructed an internal scaffolding to roof level and installed the roof timbers. We installed a flat roof similar to the original (lead) roof but this time I decided to use a modern roofing material with modern insulation. The system I settled on was Trocal Single Ply Membrane from Germany, the same roof that is used on parts of Gatwick airport!



Once a section was roofed we dropped the internal scaffolding and worked our way up again installing the internal floors working off each new floor to install the next.
We did not have any internal records of the building so we had to start from scratch as far as internal finishes were concerned. I visited many buildings of the same period both locally and nationally to begin to build a picture of what the internal joinery and plasterwork might look like. We studied the masonry very carefully internally and where able to establish details such as floor to ceiling heights.
We were able to see the door, window & fireplace positions and I engaged an architect to draw up very accurately a typical Irish box sash window from the period based on some original samples sourced locally.

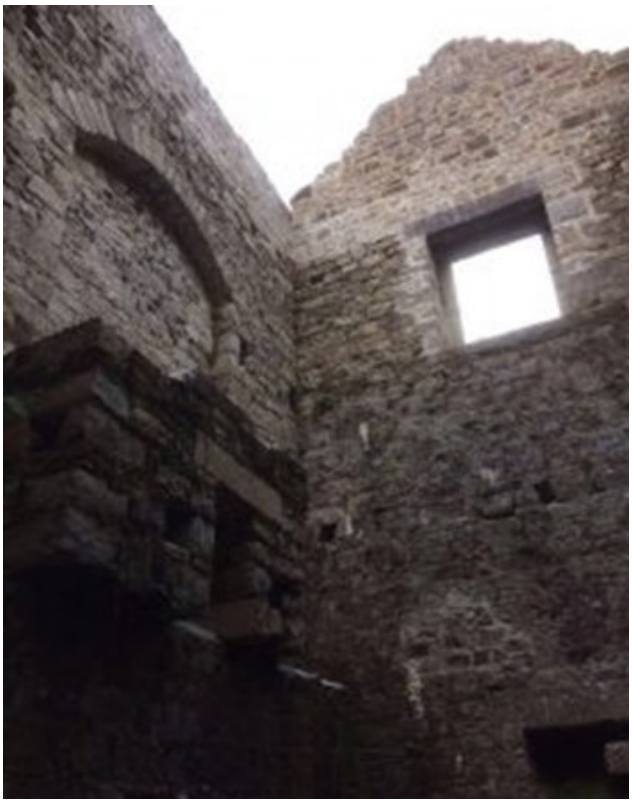
Internal doors were copied from another local family property of the same period.
We had amongst the team a very good decorative plasterer and decided to run 3 special ceilings in the Drawing Room, Dining Room and Library. The Drawing room was based on evidence of the original and the centre piece was copied from Bantry House. The Dining Room is a copy of the dining room ceiling in Birr Castle and the Library was taken from an old pattern book.

Just over 3 years after we started the project we moved in along with our 2 young sons and the project has evolved into a fantastic family home.
The project was a very rewarding challenge and it is my sincere wish that many more generations of our family will enjoy it.

Baravore Crusher House, Stone Conservation by Kevin Carrigan

The Stone Restoration project of Baravore Crusher House is a majestic stone structure built into the side of the Wicklow mountains at Glenmalure. It was built in the late 1850's to service the demand for metals during the industrial revolution in England. Baravore has rich veins in Ore, Lead, Copper and Zinc minerals.
The Crusher House was originally built to crush down the stone to extract the minerals. The stone was fed into the top side of the building where a crushing mechanism was used to crush the stone. The ram was driven by a water wheel which was powered by the supply of water running from leats or streams coming down the Wicklow mountains.
Stone restoration work started on the structure in September 2016. I remember viewing the Crusher House for the first time, we had to cross a river then go over a stream that lead to an overgrown track which lead up to the Crusher House. When we arrived at the top side of the house the first thing I thought of was "this is going to be a logistical nightmare to get materials to the project" - given the remote nature of the site, I thought of a helicopter but in the end settled with a dumper. The dumper truck proved invaluable as we had to haul stone, sand, lime, water and scaffolding.
First we erected the scaffolding which we had to put up in the inside of the building as most of the work entailed flaunching, repointing, Stone Restoration and replacement on the higher parts of the structure. From a security point of view we only had two openings to secure to ensure that the site was safe. When the scaffold was in place the work could commence. First up was to replace the two granite heads over two windows which had vanished. I got McEvoys of Ballyknockan to cut two heads to match the original building detail.

The Granite head on the road side gable was tricky as the stone work above it was in a very precarious state and had to be supported with timbers. When the stonework above the head was rebuilt and secured we could breath a little easier. The second head was then bedded in and the stone work rebuilt above it.
We used a traditional hot ime mortar for the restoration works on the Crusher House. At the higher levels there was a lot of loose stone restoration and traditional repointing to be done. There were trees and shrubbery growing out of the wall tops which we removed. When the wall tops were cleaned down we could flaunch them and protect the walls from the weather.



View of completed conservation works including stabilisation and stone repair

Coillte Open Day

On the 25th of March 2017 Coillte held an open day at the Historic Mining structure inviting the local community of Glenmalure Co. Wicklow to celebrate and experience the Stone Restoration work carried out. A representative from Coillte, Pat Neville, opened up the day giving a brief overview of the project and the history of the area surrounding the Ore-Crushing Facility.

We also had the pleasure of having Roisin Burke from Abarta Heritage to exhibit an archaeological excavation on the grounds of the site bringing back the layers of history attached to the building. I then followed with a presentation giving an overview and demonstration of my conservation work on this historical project. I also gave the local community information on the traditional methods used by our Stone Masons in our Brick and Stone Restoration projects throughout the country. This covered the use of hot mix lime mortars and included a live demonstration.

This was a beautiful project to work on in a scenic part of Ireland. Most importantly it was pleasure to work with Coillte, Wicklow Co. Council, Carmel O'Toole and the PURE mile committee on the restoration of Baravore Crusher House County Wicklow. I would also like to thank Ivor McElveen for his insight and knowledge as engineer for the project.

www.kevincarriganrestoration.ie/restoration-of-balavore-crusher-house

DATING BRICKWORK
By Susan Roundtree

An article published in the British Brick Society's *Information 131* (September 2015) was centred on a query from a building owner looking to 'firm up' the dating of his seventeenth-century fisherman's cottage in Deal in Kent. The responses (from Peter Minter, Richard Harris and David Kennett) were well structured, informative and interesting, and the sort of 'conversation' that BLFI members could engage with (on Irish brick as well as mortars), especially as recent experience in the Dublin area has brought to light a number of buildings known to be of seventeenth or early eighteenth-century origin, such as those on Aungier Street and James Street, and early buildings behind later facades on Thomas Street.

A recommendation from the BBS article in terms of measurement is quoted below:

'As well as the height of each brick it is useful also to measure the course height. I generally measure 12 courses (top of brick to top of brick) so that a measurement of 2 feet 6 inches instantly gives me 2½ inches per course, which would be normal for the earlier seventeenth century.'

It is difficult to date handmade bricks. However, bricks observed in late seventeenth-century and early eighteenth-century Dublin buildings appear to have some common characteristics in terms of their general size, colour and quality. Brickmaking flourished in Dublin city from 1599 until 1771 when brickmaking was banned in the immediate environs of the city for health reasons. The availability of locally-produced red brick lessens after this date as the brickfields along the canal routes, for example, produced a greyer coloured stock brick.

The uneven quality of individual bricks is consistent with the methods of brickmaking in the early eighteenth century and the firing of brick in clamp kilns. However, size and the visual appearance of bricks can provide some clues to age. Bricks were shallower and more tile-like (less than 2") during the medieval period and when the use of brick first spread to Ireland in the latter half of the sixteenth century. Thicker brick appears to have become more usual after about 1660, but generally appears not to have exceeded 2¼ to 2½" until later in the eighteenth-century. Edward Lovett Pearce's Building Act of 1730 introduced for the first time in Ireland quality control measures for brickmaking, and a minimum size of brick to be produced for sale. This size of 9½ x 4½ x 2¼" seems generally to have been ignored by brickmakers, but the 2¼" depth stipulated does appear to apply to earlier brick.

Perhaps other BLFI members might have some views or experience to share on this topic.

Youghal Brickworks Chimney, Co. Cork

BRICKMAKING IN IRELAND
By Susan Roundtree

I am in the process of mapping the locations where bricks were made in Ireland in previous times and intend to publish the results in the form of a gazetteer next year. If BLFI members have come across any particular references to local brickmaking in connection with their work on historic buildings I'd be very glad to hear from them.

The practice of brickmaking was widespread in all counties in Ireland, particularly during the course of the nineteenth century, but also in earlier and later times. Survey work published by the Meath Field Names Project, for example, has identified almost 100 fields in the survey area with names such as 'The Brick Field', 'The Brick Yard', 'Brick Hill', or 'The Brick Meadow' (Mullen & Ludlow, *The Field Names of County Meath*, 2013). Some of these locations can be found marked on historic ordnance survey maps, but many are not, and most have left no physical trace of former use.

Tinode Scotch Kiln, Co. Wicklow

In a few places physical evidence of brickmaking does survive in elements of later brickworks, like the Scotch kiln at Tinode in Co. Wicklow, the chimney at Youghal in Co. Cork, and building remains of Tullaghan Brickworks in Co. Sligo.

Most brick found in Irish buildings is of local origin so the data I am compiling is intended to be both a record of past manufacturing heritage and also some addition to our knowledge and understanding of historic building materials. Brick masonry is often concealed in buildings, in chimneys, wall linings arches and vaulting, and, in many places, is not seen until buildings fall into a ruined or collapsed state.

Walled gardens, however, are one type of structure where a brick is found in all counties, lining walls intended for growing fruit. One recently restored example is the four-acre Colclough garden at Tintern Abbey in Co. Wexford, where many thousands of bricks were made on the spot to build this immense and impressive garden in the early nineteenth century.

Please email susan.roundtree53@gmail.com if you have anything to share to inform this survey work or would like to add any comments.

Tullaghan Brickworks, Co. Sligo

Colclough Walled Garden, Tintern Abbey, Co. Wexford

GLAS and Hot-mix Mortars

By Ivor McElveen

GLAS is an annual grants scheme for the conservation and repair of traditional farm buildings for farmers in the Green Low-Carbon Agri-Environment Scheme (GLAS). It is administered by The Heritage Council in partnership with the Department of Agriculture, Food and the Marine.

It succeeded the successful REPs Scheme in 2016. Its contribution to the enhancement of the rural landscape and in the protection of our vernacular architecture is significant.

The use of the hot-mix method of preparing mortars using Growmax granulated quicklime is proving increasingly popular. As nearly all farmers are surrogate builders, there is usually a keen interest in the restorative work with quite a number taking on the task themselves. The novel preparation of the quicklime mortar intrigues and the tradition is appreciated, often pointing out where the farm lime kiln was located. They are even more intrigued when they realise that they can get the stuff from the local co-op or agri supplier. Some of them are already using quicklime for soil conditioning.

Local masons and plasterers seem to experience no difficulty in adopting and adapting to the use of granulated quicklime. The most popular formula being 1:1:6, that is: - 1 QL; 1 NHL 3.5 and 6 aggregate, with a preference for well graded calcareous aggregate as high as 8 mm dn. This mix gives a ratio of 2 to 1 as the QL doubles in size when slaking, giving 3:6, or 1:2, being 2 aggregate to 1 lime as the ratio of the finished mortar.

It is to be noted that the above formulation is derived from evidenced, based research undertaken during the HLM Project at the OPW Athenry Depot in 2014 and compares favourably with that used in Scotland for the last 30 years or more.

The following are some of the farmyard buildings restored in County Wexford since 2016 using hot-mix lime mortars.

An Chomhairle Oidhreachta
The Heritage Council

Grants vary between €4,000 and €25,000. A grant will not be for more than 75% of the cost of the works, maximum available grant €25,000. The grant is available for the conservation of traditional farm outbuildings, including roof, walls, structural repairs, windows and doors and other related farm structures including historic yard surfaces, walls, gate pillars and gates.**www.heritagecouncil.ie/projects/traditional-farm-buildings-grant-scheme**

Roadside Farm buildings, Ballysilla. Co Wexford.

Above, Ballynelahillan Farm buildings using a hot-mix harling, below landscape view of Ballynelahillan Farm.

Farm buildings at Ballywilliam House, Co Wexford.

Farmyard buildings at yard entrance, Ballinabanogue, Co. Wexford.

Brief overview of BLFI Lime Slam 2018 by Sarah J. Halpin

The annual Lime Slam kicked off with Lisa Edden, BLFI chair, providing an update on work being carried out by the Building Limes Forum.
The mornings talks started with **John Beattie** from Carrig Conservation, speaking about 10 Mill Street. It was an absorbing overview of the conservation works of this 1720's former 'Dutch Billy'. There was a very interesting and unusual (to date) approach to the front brick facade. The surviving historic brick was given a raddle finish with wigged detail to the window heads. This approach can also be seen at similarly early buildings of Tailors Hall and at Kew Palace.
George O'Malley from O'Malley Plastering highlighted the risks of undertaking quick fix repairs to historic ceilings. An evidenced based approach carried out to best conservation practice is what is always needed.
Kevin Carrigan from Kevin Carrigan Restoration gave a whistlestop tour of a fascinating career as stone mason. There was an interesting discussion about limecrete floors.
Henry Thompson from the Oldbuilders Company, provided a fascinating overview of recent conservation works at St. Cronans, Roscrea. The exposed location and earlier inappropriate repairs to the tower, pinnacles and parapet had resulted in urgently required repairs.
After lunch, **Lisa Edden** provided an overview of recent research by David Wiggins, Senior Structural Engineer with Curtin Consultancy in the UK. His recent research has demonstrated that modern NHL mortars fall short when compared with historic mortars and the un-regulated widespread use of premixed NHLs presents a threat to historic masonry. A most interesting and thought provoking presentation for anyone involved in building conservation.
Colin Bell, Architect discussed proposed wall repairs at Assaroe Abbey in Donegal. He emphasised the need for an evidenced based and multi-disciplinary approach with specialist contractors and archaeologists.
Eoin Madigan, Stone Mason spoke about conservation repairs to O'Brien's Column in West Clare. This column dates to the mid 19th century and conservation works were instigated by the Follies Trust. The column is in a very exposed location and once the scaffold was erected it was discovered that the urn at the top of the column was dangerously unstable.
Declan Fahy described repairs to the a tower house near Loughrea, Co. Galway. The tower house was on his land and large sections of limestone had been robbed from the base of the tower leaving it very exposed and at risk of damage. The work was grant aided by the Heritage Council Glas Farm Buildings Grant. Eoin Madigan provided training to the owner and the work was carried out by the owner and his father. This talk was particularly empowering as it showed how with support and training, guardians of historic buildings, can carry out important conservation repairs to their own buildings which will safeguard this asset into the future.
The day ended with a presentation by **Shane Nolan** which focused on the appropriate repair of brick, covering the importance of wigging, in particular when, where and how it should be carried out.
This is one of my favourite annual events as the talks are always a great mix of conservation professionals and conservation contractors. Speakers talk with great honesty about what worked and what didn't work.
The technical know how of the contractors provides great information for specifiers and conservation advisors.
The coffee break, lunch break and post talk discussions provide useful time to discuss different issues and approaches. The lime slam emphasises the need for an evidenced based approach to conservation works, the need for multi-disciplinary approaches and the need for specifiers to listen to experienced conservation contractors and to work together.

Lime Slam 2019 - a snapshot….

Another inspiring day of presentations from **Féile Butler, Ivor McElveen, Tom Pollard, Kevin Carrigan, Lisa Edden, Shane Nolan, Fionnuala O'Conor, Jason Bolton, Pat Hickey, Eoin Madigan** and **Lenzie O' Sullivan**. Topics covered everything from hempcrete in Co. Leitrim, to a storm damaged pier in Dalkey, the repair of a military fort in Florida and an archaeological view of mortars. Further presentations included repairs of a Georgian townhouse, adaptive reuse of a coach house, stone repairs and of course, hot lime mortars. The value of community driven conservation and need for quality education and training generated great discussion. As usual, members made the most of break times, where the conversation flowed well beyond the allocated time!

18 Ormond Quay Upper nears completion

Dublin Civic Trust's building conservation project at 18 Ormond Quay Upper is entering into its final phase of refurbishment with the reinstatement of the upper floor interiors.

To date, the project has involved the major structural repair of the four-storey over basement 1840s building, including insertion of structural steel sections, floor ties and brickwork ties – undertaken by the Trust's contractor, Nolans Group. To the exterior, a cementitious dashing was successfully removed, revealing the original yellow brickwork that was cleaned and re-pointed in traditional wigging based on a surviving sample on the side elevation. Window reveals were traditionally 'feathered' in lime and the important late Georgian shop-front – which likely pre-dates rebuilding in 1843 – was stripped of paint revealing its granite ashlar, then lime repointed.

The interiors are presently being restored to an 1840s appearance, including conservation and reinstatement of existing and new joinery by contractors, Lambstongue. Cornices and ceilings have been stitched and replicated by Irish Fine Art Plasterwork while the opportunity was taken to thermally upgrade some exterior walls using Diathonite and Calsitherm insulating plasters supplied Ecological Building Systems and installed by DB Plaster. Authentic 1840s-design chimneypieces and hearths have been instated by David O'Reilly Fireplaces of Francis Street which inject an elegant domestic atmosphere to the upper floors.

Rooms are presently being decorated in David Skinner wallpapers based on patterns made on Dublin's quays during the 1830s and 1840s, completing a rare example of a 19th-century Liffey-side, merchant shop-house reinstated to its original appearance. Details of public access to the building will be announced soon. Follow the project, help support it through much-needed donations, and learn of upcoming seminars and training events at www.dublincivictrust.ie and on the Trust's social media pages.

City Lime Works, Killkenny

A vestige of Kilkenny's lime industry is proudly proclaimed in the smart yet sober lettering displayed over a carriage archway at No.35 John Street Upper, Kilkenny. The façade of the former 'City Lime Works' is testament to the once common place usage of lime in our society, prior to its decline in the 20th century.

An article in the *Old Kilkenny Review* indicates that a James Connell, builder and contractor, had established a builder's providers yard to rear of No.34 and No.35 during the mid-1870s, which included a saw pit and lime kiln.

The site is clearly depicted on the historic 25 inch Ordnance Survey map (1888-1913) which records a lime kiln to the west of the site, set at a distance from the surrounding buildings. The kiln is illustrated in some considerable detail with a substantial footprint confirming that the enterprise was designed on a small industrial scale. The kiln continued to operate until the mid-20th century and was finally demolished in the late 1970s when the demand for lime had fallen sharply.

(NIAH Record : 12000209).

We would be interested to hear of any other vestiges of lime works set within urban settings - please email at **johnhughbeattie@hotmail.com** with details.

Newsletter
Building Limes Forum Ireland

Comments and articles in this newsletter do not necessarily reflect the views of the board or editor.

2019 Calendar of Events

February 7th	**Lime Slam** Helen Roe Theatre, RSAI, 63. Merrion Sq., Dublin
May 16th	**BLFI AGM** with Guest Speaker Grellan Rourke, IAA, 45 Merrion Sq.
May	**BLFI Hot Mix Mortar Seminar & Workshop- details to be confirmed**
June 10th- 12th	**York Traditional Mortars Symposium,** University of York & York Minster, UK
June 15th	**Walking Tour** Hillsborough Castle, Co. Down
June 20th - 22nd	**Conservation without Frontiers** Living Towns & Villages in Cavan & Fermanagh IGS-UAH
August 17th- 25th	**National Heritage Week** Theme: Pastimes Past Times
September 12th- 15th	**Feile na gCloch** Inis Oírr
September 20th - 22nd	**BLF Annual Conference & Gathering** The Engine Shed, Stirling, Scotland
October 10th	**BLFI Hot Mix Seminar & Workshop, Drimnagh Castle, Dublin**
Dates to be confirmed	**Site Visits** Bullock Harbour & McKee Barracks

Training & Education

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What is Building Limes Forum Ireland?

The Building Limes Forum encourages expertise and understanding in the use of building limes. It aims to achieve this goal by:

- exchanging, collating and disseminating information, through publication of a regular journal and by holding meetings and conferences;
- encouraging practical research and development through field studies, trials, monitoring and analysis;
- encouraging development of appropriate industrial and craft skills and techniques;
- educating building professionals, builders, conservators, craftsmen and women, and property owners in the appropriate use of lime in building through demonstrations, publications and courses;
- developing contacts with institutions and individuals outside the forum and in other countries that have relevant experience or knowledge.

Communicating With Your Forum

If you would like to respond to any of the topics on this or future newsletters or if you would like to get involved please contact us by post or by email on **info@blfi.net**

Buildings Limes Forum

The Building Limes Forum was established in the UK in 1992. The Irish regional branch was established in 1999, and formally constituted as the Building Limes Forum Ireland in 2005. It is affiliated with the BLF UK.
It is a voluntary organisation with no commercial ties, the majority of members being actively concerned with the repair of historic buildings and some in new build. The Forum acts as an information network, and publishes newsletters and an annual journal of the BLF.

Membership

The BLFI is currently looking for new members.
Membership of the Building Limes Forum offers:

- the opportunity to participate in conferences, courses, workshops, demonstrations and visits organised by the Forum;
- an informal network of contacts that is prepared to share information and to discuss matters of general interest to members;
- a means of supporting the stated aims.

An application form for membership of the BLFI can be downloaded on **www.buildinglimesforumireland.com**