

# House Building Project

The Education and Outreach Department of the Museum of Country Life aims to draw attention to aspects of the Museum's exhibitions, to increase awareness of traditional materials and skills and to explore their relevance today.

In Summer 2003 we undertook a **house building skills** project. Skilled craftspeople worked in the grounds of the museum to demonstrate and explain the variety of materials, tools and techniques that were used at different times in building traditional houses in Ireland.

The resulting structure is biodegradable and was made from the sustainable, managed and renewable natural resources of wood, earth, stone and straw, locally produced, as was the case for many thousands of years in the vernacular dwellings of our ancestors.

Tours and workshops to explain the project and demonstrate skills such as wattle weaving, thatching and lime-washing are held at regular intervals or can be arranged for groups.



## thatch

Brian Rogers

The typical thatched roof had a layer of sods (either earthen or turf) on top of rafters and laths, onto which the thatch was fixed. This sod layer served as a draught-proof, an insulating layer, and a fireproof barrier.

A variety of materials are used in the process of thatching such as reed, rye, wheat, oats, barley, sedge, flax, rushes and heather. Large volumes of hazel and willow, as well as bramble and snowdrops, were used as scollops (pins) and rods. Súgán (straw) ropes were used as binders. Approximately three acres of straw and 4000 scollops were needed for a typical roof.

The principal tools used are still the legatt, beetle or bat, a knife, a sheep shears, and a ladder. Reed pins serve as temporary tensioning tools. A stitching needle and a stopper and a thruster are also used.

Very little fossil fuel is used to produce thatch compared to that expended on other roof types. It can be produced locally and it is constantly renewable. As such it has many sustainable characteristics.

Thatch is an intrinsic part of our vernacular architecture but has been in very sharp decline since the late 1950's. It faces serious threats. Water pollution and fertilisers, coupled with a change in the UV rays of sunlight, acid rain, and increased levels of rain and wind all make thatch less durable. It is also very labour intensive and therefore expensive. The production of straw and reed for thatching in Ireland is virtually collapsed and the vast majority of thatch materials are now imported.

These factors combined with the lack of technical back-up contribute to the current decline of thatch as a significant contributor to the social economy and as a powerful community art form.

Thatch has a leading edge contribution to make in matters such as developing local economies; the diversification of farming practices, the stabilisation of rural communities, ecologically sound and the social economy. It is a key means of articulating our heritage and culture through an exploration of our vernacular architecture.

Vernacular architecture is about a sense of place; of our houses and our built environment 'coming up out of' and reflecting the local environment and community. It is about an architecture that interacts with, and reflects, the local.

1. This decline is somewhat slowed down by grants paid directly to householders

\* This system is now being slowly reintroduced as an element of government policy on sustainable forest management.

## wattle

Joe Gowran

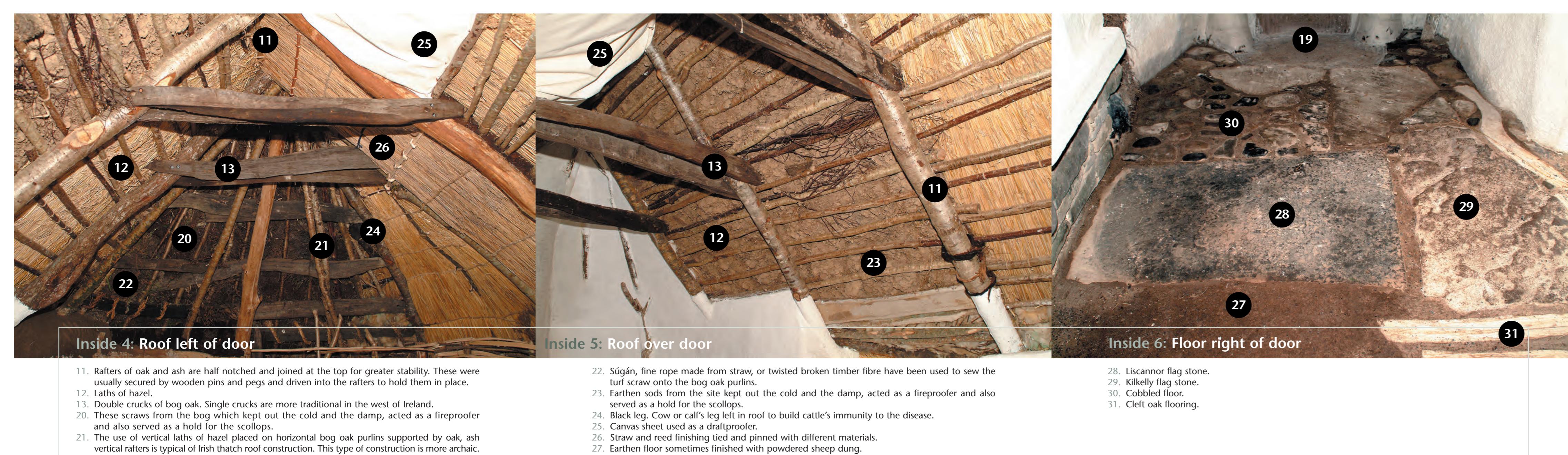
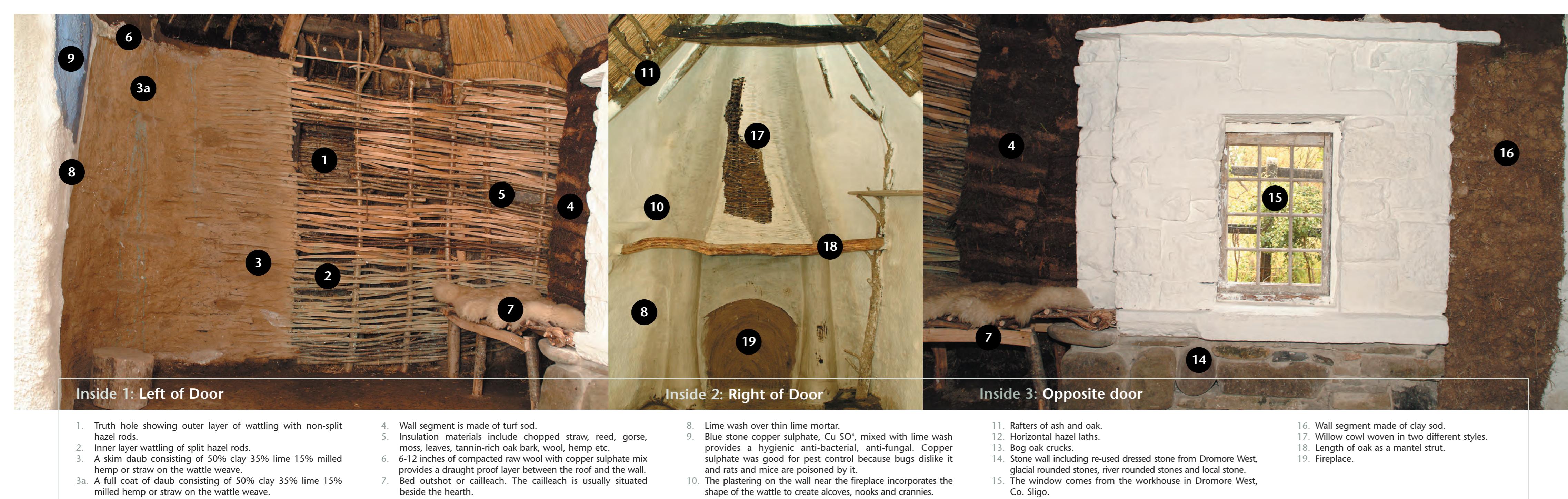
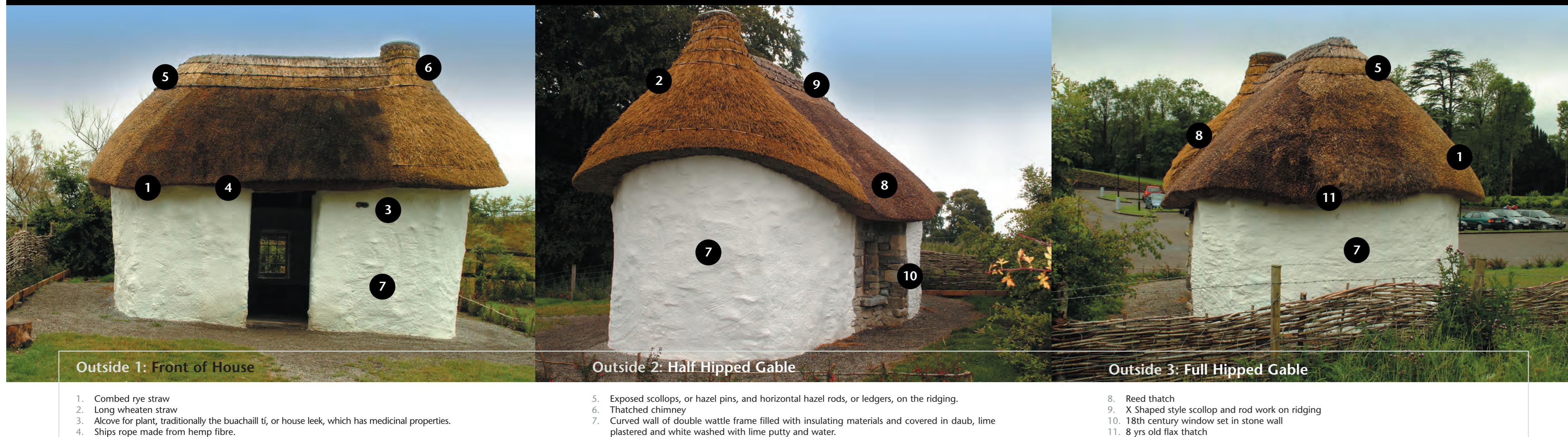
Wattle is composed of flexible rods interwoven to form a hurdle or frame. It was sometimes covered in daub and used in wall building. These flexible rods or poles were produced by coppicing, which is the repeated cutting of hardwoods to produce crops of rods or poles.

The process of coppicing\* hazel to produce rods for wall weaving, in a manner that gave reasonable structural strength, was probably discovered after periods of slash and burn agriculture on the margins of natural temperate forest across central and western Europe, from c.10-7,000 yrs ago. The techniques involved remain basically the same today except for the development of iron cutting tools.

Hazel was abundant in semi-natural woodlands throughout Ireland when the early settlers arrived from Europe. A building culture developed which relied heavily on wattle up to Norman times and to a lesser extent up to the late seventeenth century. A major expansion in managed grassland reduced hazel resources to rocky outcrop and field margins. Clearance of hazel scrub continues to this day usually after re-colonisation onto temporarily abandoned farmland.

Wattle based constructions were the preferred option of the native or 'Wild Irish' up to the 1600s. Round houses of approximately 4m in diameter, consisting of a double layer wall with some form of insulation (bracken or possibly wool) between the two layers, were quick and easy to construct. Therefore dwellings could be built near, or in, hazel, ash and oak woods and close to supplies of varied thatching materials. More permanent structures were designed for winter quarters while temporary dwellings were designed for summer grazing on uplands.

Lime has been used in building throughout Europe for thousands of years. It was one of the Romans preferred building materials. It has been used in building in Ireland as a mortar, plaster and 'wash' right up until the introduction of the more modern cement based mortars. Lime still plays a big part in the construction industry but is no longer as important as it was. Slowly the use of lime mortars and plasters is becoming more popular as more people are looking for natural 'breathable' materials in the construction of their homes.



## acknowledgements

### List of Building Craftspeople

Joe Gowran, Niall Miller, Clint Taylor  
Brian Rogers, Brian Simpson, Susanne Bojkovsky  
Edward Byrne & Terry McGroarty Irish Traditional Lime Company  
Enda Collins, Tim Roderick, Brian Rogers

Wattle, Oak  
Thatch  
Plastering  
Stone Walling

The craftspeople working on this project are affiliated to Muintir na Coille: The Ecological Trades Community (ETC).

The Ecological Trades Community is concerned with efforts to manage resources in a sustainable manner in an atmosphere of fair trade and solidarity. It aims to "organize the gathering of ecological traders/service providers for public education and for the cross fertilization of ideas and capacity building within the 'environmental' sector" of the economy. It aims to strengthen the isolated, marginal and obscure trades and crafts by increasing confidence through socialization and the 'strategic skills' notion".

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Lorna Elms, Kilkelly  
Sligo County Council  
Sligo Loy Association  
Mayo County Council

Stone  
Oak & Hazel  
Hazel  
Hazel  
Stone  
Stone  
Clay screws  
Grounds and materials

For further information contact Reception or the Education and Outreach Department Booking Office

Telephone 094 90 31751  
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Email education@phmuseum.ie  
Booking Office Hours Monday to Friday 10.00am - 2.00pm

## reading list

### Books of Interest in relation to Vernacular Architecture.

- Alen, F.H.A., Whelan, K. and Stout, M. (1997) *Atlas of the Irish Rural Landscape*, Cork University Press, Cork.
- Evans, Emry-Estyn, (1957) *Irish Folk Ways*, Routledge and Keegan Paul Ltd., New York.
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- Ní Fhlóinn, Bairbre and Dónnésen, Gabriel, (eds.) (1994) *Traditional Architecture in Ireland and its Role in Rural Development and Tourism*, Environmental Institute, U.C.D. Dublin.
- O'Danachair, Caomhín, 'Traditional Form of Dwelling in Ireland', *Journal of the Royal Society of Antiquaries of Ireland*, Vol 102, part 1, 77-96.
- Paria, Sara and Bolton, Jason, (2000) *Stone, Brick and Mortar*, Wordwell Ltd., Bray, Co. Wicklow.
- Shaffrey, Maura and Pfeiffer, Walter, (1990) *Irish Cottages*, Weidenfeld and Nicholson, London.
- Shaffrey, Patrick and Maura, (1985) *Irish Countryside Buildings*, O'Brien Press, Dublin.